PART A

IONOSPHERIC DATA

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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

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CONTENTS

SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1952, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Geneva, 1951. Excerpts concerning symbols and terminology from Document No. 626-E of this Meeting are given on pages 2-7 of the report CRPL-F89, "Ionospheric Data," issued January 1952. Reprints of these pages are available upon request.

Beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given in Document No. 626-E referred to above, plus an additional symbol, R: "Scaling of characteristic is influenced or prevented by absorption in the neighborhood of the critical frequency," (May 1955).

a. For all ionospheric characteristics:

Values missing because of A, C, F, L, M, N, Q, R, S, or T are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F2 (and h'E near sunrise and sunset) missing for this reason are counted usually as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count.

Values missing because of G are counted:

1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

The symbol W is included in the median count only when it replaces a height characteristic; the symbol D, only when it replaces a frequency characteristic.

Values missing for any other reason are omitted from the median count.

c. For MUF factor (M-factors):

Values missing because of G or W are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):

Values of fEs missing because of E or G (and B when applied to the daytime E region only) are counted as equal to or less than the median foE, or equal to or less than the lower frequency limit of the recorder.

Values of fEs missing for any other reason, and values of h'Es missing for any reason at all are omitted from the median count.

Beginning with data for November 1945, doubtful monthly median values for ionospheric observations at Washington, D. C., are indicated by parentheses, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, the data are considered insufficient and no median value is computed.

2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, as long as there are at least five values, the median is not considered doubtful.

3. For all layers, if more than half of the values used to compute the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

The same conventions are used by the CRPL in computing the medians from tabulations of daily and hourly data for stations other than Washington, beginning with the tables in IRPL-F18.

The tables and graphs of ionospheric data are correct for the values reported to the CRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of the errors are due to:

a. Differences in scaling records when spread echoes are present.

b. Omission of values when foF2 is less than or equal to foF1, leading to erroneously high values of monthly averages or median values.

c. Omission of values when critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series report IRPL-F5.

Ordinarily, a blank space in the fEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of foE. Blank spaces at the beginning and end of columns of h'F1, foF1, h'E, and foE are usually the result of diurnal variation in these characteristics. Complete absence of medians of h'F1 and foF1 is usually the result of seasonal effects.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the CRPL-D series publications. The following points are worthy of note:

a. Predictions for individual stations used to construct the charts may be more accurate than the values read from the charts since some smoothing of the contours is necessary to allow for the longitude effect within a zone. Thus, inasmuch as the predicted contours are for the center of each zone, part of the discrepancy between the predicted and observed values as given in the F series may be caused by the fact that the station is not centrally located within the zone.

b. The final presentation of the predictions is dependent upon the latest available ionospheric and radio propagation data, as well as upon predicted sunspot number.

c. There is no indication on the graphs of the relative reliability of the data; it is necessary to consult the tables for such information.

PREDICTED AND OBSERVED SUNSPOT NUMBERS

The following predicted smoothed 12-month running-average Zürich sunspot numbers were used in constructing the contour charts:

Month	Predicted Sunspot Number										
	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946
December		42	11	15	33	53	86	108	114	126	85
November		35	10	16	38	52	87	112	115	124	83
October		31	10	17	43	52	90	114	116	119	81
September		30	8	18	46	54	91	115	117	121	79
August		27	8	18	49	57	96	111	123	122	77
July		22	8	20	51	60	101	108	125	116	73
June	89	18	9	21	52	63	103	108	129	112	67
May	77	16	10	22	52	68	102	108	130	109	67
April	68	13	10	24	52	74	101	109	133	107	62
March	60	14	11	27	52	78	103	111	133	105	51
February	53	14	12	29	51	82	103	113	133	90	46
January	48	12	14	30	53	85	105	112	130	88	42

The latest available information follows concerning the corresponding observed Zürich numbers (some of which may be subject to minor change) beginning with the minimum of April 1954.

Observed Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1954				3	4	4	5	7	8	8	9	12
1955	14	16	19	23	29	35						

WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 52 and figures 1 to 104 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Republica Argentina, Ministerio de Marina:
Decepcion I.

Commonwealth of Australia, Ionospheric Prediction Service of the Commonwealth Observatory:
- Brisbane, Australia
- Canberra, Australia
- Hobart, Tasmania
- Townsville, Australia

Australian Department of Supply and Shipping, Bureau of Mineral Resources, Geology and Geophysics:
- Watheroo, Western Australia

University of Graz:
- Graz, Austria

University of Sao Paulo:
- Sao Paulo, Brazil

Defence Research Board, Canada:
- Ottawa, Canada

Radio Wave Research Laboratories, National Taiwan University, Taipeh, Formosa, China:
- Formosa, China

Icelandic Post and Telegraph Administration:
- Reykjavik, Iceland

Indian Council of Scientific and Industrial Research, Radio Research Committee, New Delhi, India:
- Ahmedabad, India (Physical Research Laboratory)
- Bombay, India (All India Radio)
- Calcutta, India (Institute of Radio Physics and Electronics)
- Delhi, India (All India Radio)
- Madras, India (All India Radio)
- Tiruchy (Tiruchirapalli), India (All India Radio)

Ministry of Postal Services, Radio Research Laboratories, Tokyo, Japan:
- Akita, Japan
- Tokyo (Kokubunji), Japan
- Wakkanai, Japan
- Yamagawa, Japan

Christchurch Geophysical Observatory, New Zealand Department of Scientific and Industrial Research:
- Rarotonga, Cook Is.

Norwegian Defence Research Establishment, Kjeller per Lillestrom, Norway:
- Oslo, Norway
- Tromso, Norway

Manila Observatory:
Baguio, P. I.

South African Council for Scientific and Industrial Research:
Capetown, Union of South Africa
Johannesburg, Union of South Africa
Nairobi, Kenya (East African Meteorological Department)

Research Institute of National Defence, Stockholm, Sweden:
Upsala, Sweden

Post, Telephone and Telegraph Administration, Berne, Switzerland:
Schwarzenburg, Switzerland

United States Army Signal Corps:
Adak, Alaska
Ft. Monmouth, New Jersey
White Sands, New Mexico

National Bureau of Standards (Central Radio Propagation Laboratory):
Anchorage, Alaska
Guam I.
Maui, Hawaii
Narsarssuak, Greenland
Panama Canal Zone
Point Barrow, Alaska
Puerto Rico, W. I.
San Francisco, California (Stanford University)
Washington, D. C.

HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 53 through 64 follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference," pages 36 to 39, and the median values are determined by the conventions given above under "Symbols, Terminology, Conventions." Beginning with September 1949, the data are taken at Ft. Belvoir, Virginia.

Table 1

Washington, D. C. (38.7°N, 77.1°W) December 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.1					<1.6	3.0
01	280	3.2					<1.6	3.0
02	280	3.4					<1.6	3.0
03	270	3.8					<1.6	3.0
04	260	3.9					<1.6	3.1
05	250	3.7					<1.6	3.1
06	240	3.6					<1.6	3.1
07	240	4.3			---	<1.6	<1.6	3.3
08	220	6.9			120	2.0	2.0	3.5
09	230	8.4	230	---	110	2.5	2.7	3.4
10	230	8.6	220	---	110	2.8	3.0	3.35
11	240	9.4	210	---	110	3.0	3.4	3.35
12	240	9.9	220	---	110	3.1	3.2	3.3
13	240	9.8	220	---	110	3.1	3.1	3.2
14	240	9.4	220	---	110	2.9	2.9	3.3
15	230	9.2	220	---	110	2.5	2.6	3.3
16	230	9.0			120	2.1	3.0	3.3
17	210	8.0					1.9	3.3
18	220	6.5					3.0	3.2
19	230	5.7					<1.6	3.3
20	230	4.6					<1.6	3.3
21	240	3.6					<1.6	3.2
22	260	3.2					<1.6	3.1
23	280	3.0					<1.6	3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 2

Tromso, Norway (69.7°N, 19.0°E) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	(2.2)					3.3	---
01	---	(3.0)					4.0	(2.85)
02	---	(3.6)					4.0	(2.7)
03	295	3.7					3.8	2.8
04	285	3.2					2.6	2.9
05	275	3.0					2.8	3.05
06	255	2.6					2.8	2.9
07	255	2.7					2.8	3.05
08	250	3.2					<2.2	3.1
09	245	4.6					<1.6	3.1
10	240	5.7	---	---	---	---	>2.0	3.2
11	235	6.6	---	---	---	---	2.5	3.3
12	230	6.8	240	---	---	---	2.3	3.3
13	225	6.4	---	---	---	---	2.9	3.35
14	235	5.7			---	---	2.6	3.15
15	235	5.5			---	---	<2.2	3.15
16	235	4.6					2.2	3.1
17	240	3.6					3.0	3.05
18	(250)	(3.2)					3.6	(3.1)
19	---	(2.2)					3.8	(3.05)
20	---	(2.2)					3.9	(2.9)
21	---	---					4.1	---
22	---	---					3.8	---
23	---	---					3.8	---

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 3

Narsarssuak, Greenland (61.2°N, 45.4°W) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	320	3.4					4.5	2.9
01	340	2.9					4.0	2.9
02	330	3.4					4.0	(2.9)
03	(330)	3.6					4.5	(3.0)
04	(320)	3.4					4.4	3.0
05	(320)	2.7					4.5	3.0
06	320	2.8					3.9	3.0
07	<300	3.0					3.9	3.1
08	260	4.0			---	---	<3.0	3.2
09	240	5.5	---	---	130	2.3		3.3
10	240	6.6	250	---	120	2.1		3.3
11	240	7.3	230	---	120	2.3		3.3
12	240	7.8	230	---	130	2.4		3.3
13	240	7.7	240	---	130	2.3		3.3
14	240	7.2	---	---	130	2.0	<2.2	3.3
15	230	6.6			---	---	<2.4	3.3
16	240	5.5					3.6	3.2
17	310	4.6					3.5	3.1
18	300	3.8					3.8	3.1
19	300	(3.6)					4.0	(3.0)
20	280	3.4					4.1	3.0
21	300	(3.3)					4.3	3.0
22	280	(3.4)					4.7	(3.1)
23	320	3.4					4.8	3.0

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 4

Oslo, Norway (60.0°N, 11.1°E) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	---						---
01	---	---						---
02	---	---						
03	---	---						
04	---	---						
05	---	(2.3)					<1.4	(2.9)
06	(290)	(2.0)					<1.4	(2.9)
07	(260)	(2.3)					<1.4	(2.9)
08	250	(3.8)			---	---	<1.6	(3.1)
09	235	6.1	245	---	---	(2.0)		3.3
10	230	7.2	230	---	---	2.0	<2.2	3.35
11	240	7.8	240	---	120	2.4		3.35
12	235	8.2	240	---	115	2.4		3.3
13	230	8.2	240	---	130	2.4		3.3
14	225	8.1	240	---	140	2.2		3.3
15	220	7.5	---	---	---	1.9	<2.1	3.3
16	220	6.5			---	---	<1.5	3.35
17	220	5.8					<1.4	3.3
18	240	4.7					<1.4	3.15
19	240	3.6					<1.6	3.15
20	250	2.7					<1.4	3.05
21	---	2.4					<1.4	2.9
22	---	2.3					<1.4	2.7
23	---	2.1					<1.4	2.7

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 5

Upsala, Sweden (59.8°N, 17.6°E) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	345	(2.1)					2.2	2.8
01	340	(2.1)					2.7	2.75
02	330	1.8					2.6	2.8
03	340	1.7					2.6	2.8
04	330	1.8					2.5	2.8
05	300	1.9					2.8	2.8
06	300	2.0						2.9
07	250	3.0			---	E		2.9
08	230	5.0	---	---	---	1.6		3.3
09	225	6.4	230	3.1	115	1.9	2.2	3.3
10	220	7.6	225	3.2	115	2.2		3.35
11	225	8.0	225	(3.3)	110	2.3		3.3
12	225	8.3	230	(3.5)	110	2.4		3.3
13	225	8.2	230	(3.2)	110	2.2		3.3
14	225	8.0	225	(3.0)	125	2.0		3.3
15	215	7.2			---	1.7		3.2
16	215	6.3			---	E	2.3	3.2
17	220	5.4			---	---		3.2
18	230	4.2						3.1
19	240	3.2						3.1
20	270	2.6						3.0
21	305	2.2						2.8
22	350	2.2						2.7
23	350	2.0						2.8

Time: 15.0°E.
Sweep: 1.4 Mc to 17.0 Mc in 6 minutes, automatic operation.

Table 6

Adak, Alaska (51.9°N, 176.6°W) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.0					<1.6	2.8
01	290	3.1					<1.5	2.8
02	300	3.2					<1.4	2.8
03	300	3.0					<1.4	2.8
04	310	3.0					<1.4	2.8
05	300	3.1					<1.6	2.8
06	260	3.3					<1.5	3.0
07	240	4.6	---	---	---	---	<1.4	3.25
08	230	6.6	---	---	---	---		3.4
09	230	7.6	---	---	120	2.6		3.5
10	230	8.5	230	---	120	(2.8)	2.8	3.3
11	230	9.4	240	---	120	2.7		3.3
12	230	9.6	220	---	120	2.8		3.3
13	230	8.7	220	---	120	2.6		3.4
14	230	8.4	---	---	120	2.5		3.4
15	220	7.6			---	---		3.4
16	220	6.6			---	---	<1.7	3.4
17	220	4.6					2.6	3.3
18	230	3.2					<1.8	3.3
19	240	2.6					<1.8	3.35
20	270	2.4					<1.4	3.1
21	280	2.4					<1.5	3.0
22	300	2.7					<1.5	2.9
23	290	2.8					<1.5	2.8

Time: 180.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 7

Graz, Austria (47.1°N, 15.5°E) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	330	3.5						
01	300	3.6						
02	300	3.6						
03	300	3.6						
04	300	3.3						
05	290	3.2						
06	280	3.2						
07	250	4.8						
08	210	7.3						
09	210	8.1						
10	220	8.4						
11	230	8.9						
12	230	9.0						
13	220	8.6						
14	230	8.6						
15	220	8.6						
16	210	8.1						
17	220	6.3						
18	240	5.0						
19	250	4.4						
20	255	3.9						
21	300	3.4						
22	310	3.3						
23	310	3.5						

Time: 15.0°E.
Sweep: 2.5 Mc to 12.0 Mc in 2 minutes.

Table 8

Ft. Monmouth, New Jersey (40.3°N, 74.1°W) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.2					<1.7	2.9
01	290	3.4					<1.7	2.9
02	280	3.4					<1.6	2.9
03	260	3.5					<1.6	3.0
04	260	3.3					<1.6	3.1
05	250	3.0					<1.6	3.1
06	270	2.9					<1.7	3.0
07	240	5.4			---	<1.9		3.3
08	230	7.4	230	---	120	(2.4)		3.4
09	240	8.2	220	---	120	2.7		3.4
10	240	9.0	210	(4.0)	120	3.0		3.3
11	250	9.5	210	(4.1)	120	3.1		3.2
12	250	9.7	220	(4.0)	120	3.2		3.2
13	250	9.8	220	(4.1)	120	3.1		3.2
14	250	9.4	220	---	120	2.9		3.2
15	240	9.4	230	---	120	2.5		3.3
16	220	8.8	---	---	---	<2.1		3.3
17	210	7.8			---	<1.7	<1.7	3.3
18	230	6.1					<1.7	3.2
19	240	5.2					<1.7	3.1
20	250	4.5					<1.8	3.1
21	270	3.9					<1.7	3.0
22	260	3.6					<1.7	3.0
23	280	3.4					<1.7	3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 9

White Sands, New Mexico (32.3°N, 106.5°W) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.6					2.8	2.9
01	280	3.6					2.5	3.0
02	270	3.6					<1.9	3.0
03	280	3.6					<1.6	3.0
04	270	3.4					<1.6	3.0
05	280	3.2					<1.7	2.8
06	280	3.5					<1.6	2.9
07	240	6.0			130	---	2.6	3.3
08	240	8.3	230	---	120	(2.4)	3.5	3.35
09	250	9.8	220	---	110	(2.8)	4.8	3.3
10	240	9.8	220	(4.2)	110	(3.1)	4.9	3.2
11	250	9.9	210	(4.5)	110	3.3	4.5	3.2
12	260	9.7	210	(4.4)	110	3.4	4.1	3.15
13	260	9.8	220	(4.2)	120	3.3	3.4	3.1
14	260	9.9	230	---	120	3.2	3.5	3.1
15	240	9.2	230	---	120	2.9	3.8	3.2
16	230	8.7	220	---	120	(2.3)	3.2	3.3
17	220	7.8			---	---	<2.0	3.3
18	220	5.4					<1.9	3.3
19	230	4.2					<1.8	3.25
20	240	3.3					<2.0	3.2
21	<300	3.1					2.4	3.0
22	270	3.2					<2.2	3.0
23	290	3.2					<2.0	2.9

Time: 105.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 10

Formosa, China (25.0°N, 121.5°E) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	6.0					<1.9	2.8
01	260	6.0					<2.1	2.9
02	260	5.3					<1.7	3.05
03	240	5.3					<1.8	3.2
04	240	3.6					2.0	3.25
05	270	2.8					<1.6	2.9
06	300	3.9			---	<1.5	<1.8	2.7
07	240	8.0			120	<1.8		3.3
08	240	9.5	---	---	120	2.8		3.4
09	250	10.6	240	---	120	3.1	3.5	3.3
10	260	11.3	240	4.6	120	3.4	4.7	3.2
11	260	11.2	230	4.8	120	3.4	4.2	3.1
12	280	12.5	220	4.7	120	3.5	4.5	3.0
13	280	15.1	220	4.6	120	3.4	4.0	3.0
14	270	>16.0	240	4.6	120	3.2	4.2	3.0
15	260	>16.0	240	4.4	120	3.0	4.1	3.2
16	240	>16.0	---	---	---	---	3.3	3.25
17	230	>14.4			---	---	3.1	3.3
18	210	13.1					2.8	3.3
19	220	11.4					2.6	3.1
20	230	11.0					2.1	3.1
21	230	9.8					1.9	3.2
22	240	7.4					<2.0	3.1
23	260	6.8					<1.8	2.9

Time: 120.0°E.
Sweep: 1.1 Mc to 19.5 Mc in 15 minutes, manual operation.

Table 11

Maui, Hawaii (20.8°N, 156.5°W) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	3.7					<1.2	3.0
01	260	3.2					<1.4	3.0
02	260	3.0					<1.2	3.1
03	250	3.0					<1.2	3.1
04	270	2.4						2.8
05	300	2.3					3.9	2.7
06	300	2.5					3.4	2.7
07	260	5.8			130	1.8	<2.3	3.2
08	(260)	8.6	240	---	120	2.6	4.8	3.2
09	270	10.2	230	---	110	3.0	4.2	3.1
10	280	11.8	220	---	110	3.3	5.8	3.1
11	280	12.3	220	4.8	110	3.4	5.6	3.1
12	280	12.8	210	4.9	110	3.5	6.0	3.0
13	280	13.6	210	4.9	110	3.4	5.1	3.0
14	280	14.2	220	4.9	110	3.4	5.8	3.0
15	270	14.1	240	---	(120)	3.1	6.6	3.05
16	250	13.7	240	---	(120)	2.8	5.8	3.2
17	220	10.8			---	---	5.4	3.3
18	220	8.4					4.8	3.3
19	220	6.2					4.5	3.2
20	230	5.4					4.0	2.9
21	240	5.8					3.0	3.05
22	230	5.4					1.8	3.1
23	230	4.4					<1.2	3.1

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 12

Puerto Rico, W. I. (18.5°N, 67.2°W) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.3					<1.7	3.0
01	260	4.2					<1.8	3.1
02	250	4.2					<1.7	3.1
03	240	4.0					<1.7	3.2
04	250	3.5					<1.7	2.95
05	260	3.3					<1.7	2.9
06	270	3.2					<1.8	2.9
07	240	5.9			---	<1.7	<1.8	3.4
08	240	8.2	230	---	110	2.6		3.4
09	250	9.6	230	---	110	3.0		3.4
10	260	10.2	220	---	110	3.3		3.3
11	260	10.4	210	4.8	110	3.4		3.2
12	270	9.8	220	5.0	110	3.5		3.2
13	270	9.8	220	4.9	110	3.5		3.1
14	260	9.9	210	4.8	110	3.4		3.1
15	270	9.9	220	---	110	3.2	3.8	3.1
16	240	9.6	230	---	110	2.8	3.5	3.2
17	230	9.0	230	---	---	2.0	<2.6	3.2
18	220	8.1					<2.0	3.3
19	210	6.3					<1.8	3.3
20	230	4.6					<1.8	3.1
21	270	4.6					<1.8	2.9
22	260	4.6					<1.8	3.0
23	260	4.4					<1.8	3.0

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 13

Guam I. (13.6°N, 144.9°E) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	8.5					<2.1	3.2
01	230	8.1					<1.6	3.3
02	230	8.0					<1.4	3.4
03	220	5.7					<1.2	3.5
04	230	4.3					<1.3	3.2
05	240	3.5					1.6	3.15
06	250	3.7					2.0	3.0
07	240	7.2			120	2.1	2.8	3.3
08	(260)	9.5	230	---	110	2.8	3.6	3.3
09	(270)	11.4	220	---	110	3.2	4.2	3.2
10	280	12.0	210	---	110	3.4	4.4	2.9
11	290	11.7	200	---	110	3.4	4.0	2.55
12	300	10.8	200	4.9	110	3.5	3.8	2.5
13	300	10.7	200	---	110	3.5	3.9	2.5
14	---	11.3	210	---	110	3.3	4.4	2.6
15	---	11.7	210	---	110	3.1	3.9	2.6
16	---	12.5	230	---	110	2.8	3.7	2.8
17	250	12.5	240	---	120	2.2	<2.7	2.9
18	260	12.6					<2.0	2.9
19	270	11.7					<1.6	2.9
20	240	11.0					2.2	2.9
21	240	10.1					3.7	3.0
22	240	9.6					3.2	3.2
23	220	9.0					2.8	3.2

Time: 150.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 14

Panama Canal Zone (9.4°N, 79.9°W) November 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	4.3					<1.6	3.3
01	230	3.3					<1.6	3.4
02	240	2.8					<1.6	3.2
03	260	2.6					2.5	3.0
04	280	2.4					3.8	2.9
05	300	2.5					3.6	2.9
06	280	3.8					3.2	2.9
07	240	7.4	250	---	120	2.2	3.9	3.3
08	260	9.8	230	---	110	2.9	4.0	3.3
09	270	11.0	220	(5.0)	110	3.2	4.2	3.2
10	270	11.6	210	5.0	110	3.5	5.0	3.2
11	280	11.5	220	5.2	110	3.6	5.1	3.1
12	290	11.5	210	5.2	110	3.7	5.3	3.1
13	280	10.9	220	5.2	110	3.6	5.0	3.0
14	290	10.8	220	5.2	110	3.5	5.2	3.0
15	290	10.5	220	5.0	110	3.3	5.2	3.0
16	270	10.5	230	---	110	2.9	5.0	3.0
17	250	10.8	240	---	120	2.3	4.4	3.1
18	230	10.0					4.4	3.25
19	220	8.8					3.9	3.4
20	210	6.4					3.1	3.4
21	220	5.4					2.5	3.0
22	250	5.4					<1.6	3.0
23	230	5.2					<1.6	3.2

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 15

Reykjavik, Iceland (64.1°N, 21.8°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(310)	(3.0)					3.5	---
01	(320)	(2.7)					4.4	---
02	310	(2.8)					4.1	---
03	320	(3.3)					2.7	---
04	300	(3.0)					<2.2	---
05	300	(3.1)					<2.4	---
06	280	2.6					<1.5	(3.0)
07	240	3.6			---	---	<1.5	3.1
08	230	4.5			---	---		3.3
09	240	5.5	220	---	110	(1.8)		3.3
10	240	6.0	220	---	110	(2.1)		3.3
11	250	6.8	210	3.4	110	(2.4)		3.3
12	250	7.0	220	3.8	110	2.5		3.3
13	240	7.0	220	(3.9)	110	---		3.2
14	240	6.8	220	3.8	110	---		3.3
15	230	6.4	230	---	110	---		3.3
16	230	6.4	---	---	---	---	<2.4	3.2
17	240	6.5			---	---	<2.2	3.1
18	230	(6.6)			---	---	<2.2	(3.25)
19	240	(4.8)					3.1	(3.1)
20	250	(5.2)					3.5	---
21	270	(3.8)					3.6	---
22	(280)	---					3.6	
23	(300)	(3.4)					3.6	

Time: 15.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 16

Anchorage, Alaska (61.2°N, 149.9°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	340	2.3					<1.5	2.7
01	380	2.3					<1.4	2.7
02	380	2.3					<1.6	2.6
03	370	2.5					<2.0	2.6
04	350	2.5					<2.0	2.6
05	340	2.3					<1.8	2.6
06	320	2.6					<1.5	2.8
07	270	3.6	250	---	---	---		3.0
08	260	4.4	250	---	130	1.9		3.15
09	(290)	5.0	240	3.9	130	2.1		3.1
10	280	5.5	240	4.0	120	2.4		3.1
11	280	5.7	230	4.0	120	2.4		3.1
12	280	6.2	230	(3.9)	120	2.4		3.1
13	270	6.1	240	---	120	2.4		3.2
14	260	6.2	240	---	120	2.4		3.2
15	250	6.4	250	---	130	2.2		3.3
16	240	6.1	---	---	---	2.0		3.3
17	240	5.5					<1.6	3.2
18	240	4.6					<1.5	3.1
19	240	3.8					<1.6	3.2
20	250	2.8					<1.5	3.1
21	270	2.4					<1.6	3.0
22	280	2.0					<1.5	2.8
23	320	1.8					<1.5	2.8

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 17

Schwarzenburg, Switzerland (46.8°N, 7.3°E) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.8						3.2
01	280	3.8						3.2
02	300	3.6						3.2
03	290	3.8						3.3
04	270	3.4						3.3
05	240	3.4						3.3
06	215	2.9						3.5
07	200	4.8				---		3.7
08	200	6.0				2.2		3.85
09	200	7.0				2.7		3.8
10	200	7.5				2.8		3.8
11	200	8.1				3.0		3.8
12	200	8.5				3.0		3.75
13	200	8.3				3.0		3.7
14	200	8.4				3.0		3.6
15	200	8.5				2.9		3.6
16	200	8.5				2.5		3.7
17	200	7.8				2.3		3.8
18	200	6.8				---		3.8
19	200	6.3				---		3.7
20	200	5.4						3.6
21	200	4.6						3.65
22	230	4.1						3.4
23	250	3.8						3.3

Time: 15.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 18

Ottawa, Canada (45.4°N, 75.9°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.1					<1.6	2.9
01	280	3.0					<1.6	2.9
02	290	2.6					<1.6	2.9
03	290	2.3					<1.6	2.9
04	290	2.2					<1.6	2.9
05	300	2.2					<1.6	3.0
06	270	3.1			---	---	<1.6	3.0
07	240	5.1	---	---	120	2.0		3.3
08	240	6.4	230	3.6	110	2.6		3.4
09	250	7.0	220	4.0	110	2.9		3.4
10	260	7.6	220	4.2	110	3.0		3.4
11	260	7.8	210	4.4	110	3.2		3.3
12	270	8.0	210	4.5	110	3.2		3.3
13	270	8.0	230	4.5	110	3.2		3.35
14	270	8.1	230	4.2	110	3.0		3.3
15	260	8.0	230	4.0	110	2.8		3.3
16	250	8.0	240	3.4	115	2.3		3.4
17	230	7.8	---	---	130	1.8		3.35
18	230	7.0					<1.7	3.2
19	230	6.0					<1.7	3.1
20	250	4.9					<1.6	3.0
21	260	4.3					<1.6	3.0
22	270	4.0					<1.7	2.9
23	280	3.5					<1.6	2.9

Time: 75.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 15 seconds.

Table 19

Watheroo, W. Australia (30.3°S, 115.9°E) — October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.6					1.2	2.9
01	260	4.4					2.0	3.0
02	250	4.2						3.0
03	250	4.0						3.0
04	260	3.8						2.9
05	250	3.8						2.9
06	250	5.0	---	---		1.8		3.2
07	260	5.8	240	3.7		2.5	2.6	3.3
08	280	6.6	220	4.4		2.9	3.1	3.2
09	310	6.7	220	4.7		3.2	3.7	3.1
10	330	7.2	210	4.8		3.3	3.8	3.0
11	310	7.6	200	4.9		3.4	3.8	3.05
12	320	7.7	200	4.9		3.5	3.8	3.0
13	310	7.8	200	4.8		3.5	3.8	3.1
14	310	8.0	220	4.8		3.4	3.6	3.1
15	300	8.0	220	4.6		3.2	3.6	3.1
16	290	7.7	230	4.3		3.0	3.7	3.2
17	270	7.4	240	3.8		2.5	2.8	3.2
18	250	7.3	---	---		1.9		3.2
19	230	7.1						3.2
20	230	6.4						3.0
21	250	5.2						2.9
22	260	4.9						2.9
23	260	4.8						2.9

Time: 120.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 45 seconds.

Table 20

Deception I. (63.0°S, 60.7°W) — October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	6.3						2.9
01	300	5.9						2.9
02	300	6.0						3.0
03	290	5.8						3.0
04	290	5.5						3.1
05	260	5.4						3.1
06	240	5.8						3.4
07	220	6.6					2.8	3.4
08	220	7.2					3.4	3.4
09	220	7.2					3.4	3.4
10	220	7.6					3.8	3.4
11	220	8.2					3.8	3.4
12	220	8.6					3.8	3.5
13	230	8.2					3.6	3.6
14	220	7.9					3.3	3.55
15	230	7.2					3.4	3.4
16	220	7.0					3.0	3.6
17	230	6.5					2.6	3.5
18	240	6.6					3.0	3.4
19	250	6.8						3.3
20	250	6.8						3.3
21	260	6.8						3.2
22	280	6.5						3.1
23	290	6.6						3.1

Time: 60.0°W.
Sweep: 1.5 Mc to 16.0 Mc in 15 minutes, manual operation.

Table 21

Reykjavik, Iceland (64.1°N, 21.8°W) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00							5.1	
01	---	---					5.0	---
02	---	---					4.6	---
03	(330)	(2.7)					4.0	---
04	(340)	(2.5)					4.3	---
05	(300)	2.5			---	---	<2.4	(3.0)
06	270	3.0	---	---	---	---	<1.9	3.1
07	250	3.8	220	3.4	---	---	<2.2	3.25
08	290	4.4	220	3.6	---	---	<2.4	3.3
09	300	4.6	220	3.7	---	---	<2.4	3.25
10	300	4.9	200	3.9	---	---		3.2
11	300	5.2	210	4.0	110	(2.7)		3.2
12	320	5.0	200	4.0	110	---		3.1
13	320	5.0	200	3.9	110	---		3.1
14	330	5.0	200	4.0	110	---		3.1
15	320	5.0	210	3.9	100	---	<2.5	3.0
16	300	5.0	220	3.7	120	---	<2.4	3.05
17	270	4.9	220	3.6	110	---	2.9	3.15
18	250	4.6	---	---	---	---	3.3	3.2
19	260	4.5	---	---			3.3	3.1
20	260	(4.5)					3.2	---
21	(300)	(3.4)					3.8	---
22	---	---					4.0	
23	---	---					4.0	---

Time: 15.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 22

Anchorage, Alaska (61.2°N, 149.9°W) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	330	2.0					<2.2	2.9
01	350	2.1					<1.3	2.8
02	<390	2.2					2.5	(2.8)
03	380	2.2					2.0	2.7
04	370	2.3					1.8	2.7
05	320	2.5	---	---	---	---	<1.7	2.9
06	350	3.2	250	3.0	120	1.8		3.0
07	450	3.8	240	3.4	120	2.1		2.9
08	420	4.2	220	3.6	120	2.3		2.7
09	400	4.3	220	3.8	110	2.4		2.8
10	400	4.5	210	3.9	120	2.6		2.9
11	380	4.7	210	4.0	120	2.7		2.9
12	390	4.8	220	4.0	120	2.8		2.9
13	380	4.8	220	4.0	110	2.8		2.9
14	350	4.7	220	4.0	120	2.6		3.0
15	340	4.8	230	3.9	120	2.4		3.1
16	280	4.5	230	(3.4)	120	2.2		3.2
17	260	4.6	240	---	120	1.9		3.2
18	250	4.5	250	---	---	(1.8)		3.15
19	250	4.0			---	---	<1.6	3.1
20	260	3.4					<1.4	3.0
21	270	2.6					<1.2	3.0
22	280	2.4					<1.3	2.9
23	310	2.0					<1.9	2.9

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 23

Wakkanai, Japan (45.4°N, 141.7°E) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.5					2.2	
01	280	4.5					2.0	
02	280	4.2					2.5	
03	270	4.2					2.3	
04	260	4.0					2.3	
05	260	4.3					2.4	
06	240	5.2						
07	260	6.0						
08	280	6.5						
09	280	6.9						
10	290	6.7						
11	300	6.6						
12	300	6.6						
13	310	6.5						
14	290	6.6						
15	270	6.2						
16	270	6.3						
17	260	6.4					3.0	
18	250	6.3					2.8	
19	250	6.0					2.8	
20	260	6.0					3.5	
21	260	5.3					3.5	
22	270	5.0					2.5	
23	270	4.7					2.5	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 24

Akita, Japan (39.7°N, 140.1°E) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	4.6					3.0	
01	300	4.5					2.8	
02	300	4.4					2.6	
03	290	4.2					2.5	
04	280	4.0					2.5	
05	290	3.9					2.4	
06	250	5.3					3.1	
07	260	6.0					3.5	
08	280	6.7					3.6	
09	280	7.0					3.9	
10	300	7.1					3.5	
11	310	7.0					>3.5	
12	310	6.9						
13	320	6.9						
14	300	6.8					3.4	
15	290	6.6						
16	280	6.6					3.3	
17	270	6.8					3.5	
18	250	7.0					3.3	
19	250	6.5					3.0	
20	260	5.7					3.5	
21	290	5.1					3.4	
22	300	4.9					3.4	
23	300	4.8					3.2	

Time: 135.0°E.
Sweep: 0.85 Mc to 22.0 Mc in 2 minutes.

Table 25

San Francisco, California (37.4°N, 122.2°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	<260	(3.6)					<1.8	(2.9)
01	<280	(3.6)					<1.7	(2.9)
02	<280	(3.7)					<1.7	(2.9)
03	270	(3.6)					<1.7	(2.9)
04	<290	(3.4)					<1.8	(2.8)
05	<270	3.4					2.0	2.8
06	250	(4.0)	<250	---			<1.9	3.2
07	280	5.2	230	(3.6)	<120	(2.2)	2.4	3.3
08	300	5.8	210	(4.1)	(110)	(2.7)	2.8	3.15
09	310	6.0	200	(4.4)	(100)	(3.0)	<3.3	3.1
10	320	6.2	200	(4.5)	(110)	(3.2)		3.1
11	310	6.6	200	(4.6)	<110	(3.2)		3.0
12	310	6.8	200	(4.6)	(100)	(3.3)	3.4	3.1
13	310	6.9	200	(4.6)	110	(3.3)		3.1
14	300	6.9	210	(4.5)	(110)	(3.3)		3.1
15	290	6.7	220	(4.5)	(110)	(3.1)		3.15
16	260	6.5	230	(4.0)	(110)	(2.8)	<3.0	3.2
17	250	6.2	220	---	(110)	(2.3)		3.3
18	230	5.9	---	---	---	---	1.9	3.3
19	220	5.1					<1.8	3.2
20	<230	4.5					<2.0	3.1
21	<250	4.2					<1.8	3.0
22	<260	4.0					<1.8	2.9
23	<260	3.7					<1.7	3.0

Time: 120.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 26

Tokyo, Japan (35.7°N, 139.5°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.5					2.9	2.9
01	260	4.4					2.7	2.9
02	270	4.5					2.8	2.9
03	250	4.2					2.2	2.9
04	250	4.0					2.2	3.0
05	260	3.9					2.4	3.0
06	230	5.6	240	---	130	1.9	3.0	3.3
07	240	6.9	230	4.0	110	2.5	3.4	3.3
08	250	7.0	220	4.3	110	2.8	4.0	3.3
09	260	7.1	210	4.5	110	3.0	4.1	3.3
10	290	>7.5	220	4.8	110	3.2	3.8	3.1
11	290	7.6	210	4.8	110	3.4	3.6	3.2
12	280	7.8	220	4.9	110	3.4	3.8	3.15
13	290	7.6	230	4.8	110	3.4	3.8	3.1
14	280	7.6	220	4.5	110	3.2	3.6	3.2
15	280	7.2	220	4.4	110	3.0	3.7	3.2
16	260	7.4	240	4.0	110	2.6	3.7	3.2
17	250	7.2	240	3.5	120	2.1	3.4	3.2
18	240	7.5			---	---	3.4	3.3
19	230	6.8					3.2	3.2
20	240	5.2					3.8	3.0
21	270	5.0					3.0	3.0
22	290	4.8					3.8	2.85
23	280	4.8					3.0	2.9

Time: 135.0°E.
Sweep: 1.0 Mc to 17.2 Mc in 2 minutes.

Table 27

Yamagawa, Japan (31.2°N, 130.6°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	4.7					3.1	
01	290	4.6					3.1	
02	280	4.6					2.4	
03	250	4.3					2.3	
04	250	4.0					2.2	
05	260	3.5					2.3	
06	250	4.4					2.3	
07	240	6.6					3.2	
08	240	7.0					3.8	
09	250	7.0					4.2	
10	270	7.2					4.0	
11	300	8.0					3.6	
12	300	9.0						
13	290	9.7					3.7	
14	290	9.1						
15	290	8.5						
16	290	8.3					3.8	
17	270	8.3					3.5	
18	250	8.0					3.1	
19	240	7.7					3.6	
20	220	6.4					3.0	
21	260	4.9					3.2	
22	290	4.6					3.1	
23	300	4.7					3.2	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 28

Baguio, P. I. (16.4°N, 120.6°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	7.8					2.0	3.0
01	250	7.7					2.3	3.1
02	210	7.0					1.8	3.5
03	210	4.8					1.6	3.4
04	230	3.8					2.7	3.3
05	230	3.0					3.0	3.4
06	240	5.0					3.1	3.4
07	220	6.8			100	2.3	5.8	3.5
08	270	7.8	210	---	100	2.8	5.7	3.2
09	300	8.6	200	---	100	(3.1)	7.2	3.0
10	330	9.4	200	---	110	3.3	6.1	2.6
11	350	10.3	200	4.6	110	3.5	6.2	2.4
12	350	10.2	200	4.6	110	3.6	6.0	2.4
13	350	10.5	200	---	110	3.6	5.0	2.5
14	340	10.7	200	---	110	3.4	5.0	2.6
15	310	11.6	210	---	100	3.1	4.2	2.8
16	290	12.1	220	---	110	2.8	4.8	3.0
17	250	12.2	220	---	110	2.2	4.0	3.1
18	240	11.4					3.5	3.1
19	240	10.5					2.9	3.0
20	240	9.3					2.0	2.9
21	250	9.2					2.4	2.9
22	270	9.0					2.0	2.9
23	280	8.4					<1.8	2.9

Time: 120.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 29

Watheroo, W. Australia (30.3°S, 115.9°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.8					1.6	3.0
01	260	4.0						3.0
02	250	4.0						3.1
03	240	3.6						3.0
04	250	3.3						2.9
05	260	3.4						2.9
06	270	3.8				---		2.9
07	250	5.2	---	---		2.0	1.5	3.4
08	270	6.1	240	4.0		2.5	2.6	3.3
09	280	6.9	230	4.4		3.0	3.2	3.3
10	300	6.8	220	4.6		3.2	3.5	3.2
11	300	7.0	220	4.7		3.3	3.6	3.2
12	300	7.1	210	4.7		3.3	3.7	3.3
13	300	7.4	220	4.6		3.3	3.6	3.4
14	290	7.2	220	4.6		3.2	3.6	3.3
15	290	7.0	220	4.4		3.0	3.5	3.3
16	290	6.8	220	4.0		2.8	3.0	3.2
17	250	6.2	240	3.3		2.3	2.4	3.4
18	240	5.8				1.5	1.5	3.4
19	240	4.6						3.3
20	240	4.3						3.3
21	260	4.3						3.1
22	260	3.9						3.0
23	260	4.0						3.0

Time: 120.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 45 seconds.

Table 30

Decepcion I. (63.0°S, 60.7°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	320	3.4						3.0
01	330	3.5						3.0
02	320	3.4						2.95
03	310	3.2						3.0
04	310	3.2						3.1
05	270	3.3						3.3
06	230	4.0						3.5
07	220	5.0						3.7
08	220	5.7					2.8	3.75
09	220	6.1					3.0	3.7
10	220	6.4					3.4	3.7
11	220	6.8					3.4	3.65
12	220	6.8					3.4	3.6
13	220	7.1					3.4	3.6
14	220	6.6					3.1	3.7
15	220	6.7					2.7	3.6
16	220	6.0					2.0	3.7
17	220	5.7						3.6
18	220	5.4						3.6
19	230	4.4						3.4
20	250	4.2						3.4
21	290	3.9						3.2
22	310	3.9						3.0
23	320	3.6						3.0

Time: 60.0°W.
Sweep: 1.5 Mc to 16.0 Mc in 15 minutes, manual operation.

Table 31

Johannesburg, Union of S. Africa (26.2°S, 28.1°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	2.6						3.2
01	<240	2.5						3.1
02	---	2.5						3.1
03	<250	2.6						3.15
04	<240	2.5						3.1
05	---	2.3						3.1
06	---	2.4						3.1
07	230	4.6	---	---	---	1.9		3.5
08	240	5.6	210	3.6	110	2.4		3.5
09	270	5.9	210	4.1	110	2.9		3.3
10	280	6.3	210	4.4	110	3.1		3.3
11	280	6.6	200	4.4	110	3.2		3.3
12	280	6.4	200	4.5	110	3.3		3.3
13	290	6.3	200	4.5	110	3.2	3.6	3.2
14	280	6.4	200	4.4	110	3.2	3.9	3.2
15	270	6.5	190	4.1	110	3.0	3.7	3.2
16	250	6.1	220	3.7	110	2.7	3.1	3.3
17	230	5.7	220	2.8	120	2.2		3.3
18	220	5.0					2.1	3.3
19	220	3.9					1.9	3.3
20	220	3.1					1.6	3.2
21	<230	2.9						3.2
22	<240	3.0						3.2
23	<240	2.8						3.1

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 32

Capetown, Union of S. Africa (34.2°S, 18.3°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	2.6						3.1
01	250	2.6						3.0
02	250	2.6						3.0
03	250	2.7						3.0
04	250	2.7						3.1
05	240	2.6						3.1
06	<250	2.6						3.1
07	240	2.8					1.6	3.2
08	230	4.6	230	---	130	1.9		3.5
09	240	5.2	220	3.4	120	2.4		3.5
10	270	5.7	220	4.1	120	2.8		3.3
11	290	6.0	220	4.3	120	3.1		3.3
12	300	6.0	210	4.4	110	3.2		3.2
13	300	6.4	210	4.4	110	3.2		3.1
14	300	6.6	210	4.3	110	3.2	3.6	3.2
15	280	6.9	210	4.2	120	3.0	3.6	3.2
16	260	6.7	220	3.8	120	2.8	3.4	3.2
17	240	6.0	220	3.2	120	2.4	2.6	3.4
18	220	5.3	---	---	140	1.8		3.4
19	220	4.0					1.9	3.2
20	230	3.0						3.2
21	240	2.8						3.3
22	240	2.8						3.2
23	240	2.6						3.1

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 33

Deception I. (63.0°S, 60.7°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	330	2.7						3.0
01	320	2.7						3.0
02	330	2.7						3.0
03	310	2.6						3.1
04	310	2.6						3.1
05	290	2.7						3.3
06	280	2.5						3.4
07	250	3.1						3.5
08	220	4.0						3.7
09	210	4.6					2.8	3.8
10	210	5.0						3.7
11	220	5.0					3.2	3.75
12	220	5.0					3.4	3.75
13	210	5.4					2.3	3.7
14	220	5.3						3.7
15	220	5.1						3.7
16	220	4.6						3.6
17	220	4.1						3.6
18	220	3.6						3.5
19	260	3.0						3.35
20	300	2.6						3.2
21	310	2.4						3.1
22	340	2.5						2.95
23	350	2.6						3.0

Time: 60.0°W.
Sweep: 1.5 Mc to 16.0 Mc in 15 minutes, manual operation.

Table 34

Point Barrow, Alaska (71.3°N, 156.8°W) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	(3.9)					5.0	(3.2)
01	280	(4.2)	---	---			4.8	(3.2)
02	(250)	(4.0)	---	---	---	---	3.9	(3.05)
03	---	(3.9)	230	---	---	---	4.0	---
04	(280)	(4.1)	(230)	---	---	---	4.1	---
05	(270)	(4.2)	(230)	(3.6)	---	---	3.7	(3.1)
06	(430)	(4.1)	(230)	(3.6)	---	---	<3.7	(2.75)
07	400	4.5	(240)	(3.7)	110	(2.5)	4.5	2.8
08	400	4.6	220	3.8	110	2.6	4.4	2.9
09	450	4.6	210	3.9	110	2.7	3.5	2.8
10	430	4.4	210	4.0	110	2.8	3.2	2.8
11	440	4.6	200	4.0	110	2.9	3.2	2.8
12	440	4.6	210	4.0	110	(2.9)	3.2	2.8
13	400	4.7	210	4.0	110	(2.8)	<3.3	2.9
14	400	4.8	210	4.0	110	(2.8)	3.1	2.9
15	400	4.7	220	4.0	110	(2.8)	2.9	2.9
16	380	4.8	210	4.0	110	(2.8)		2.95
17	360	4.7	220	3.9	110	2.6		3.05
18	360	4.6	230	3.7	110	2.4	2.3	3.0
19	360	4.5	(220)	(3.6)	110	2.2	2.9	3.0
20	330	4.5	250	(3.4)	120	2.0	3.6	3.0
21	(290)	(4.3)	240	---	120	1.9	3.8	(3.1)
22	280	(4.1)	---	---	---	---	3.8	3.1
23	300	(4.0)	---	---			4.0	(3.2)

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 35

Nairobi, Kenya (1.3°S, 36.8°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	5.0					2.4	3.3
01	220	4.8					2.4	3.4
02	220	4.0					2.6	3.3
03	230	3.8					2.8	3.1
04	240	3.5					2.8	3.2
05	230	3.1					2.9	3.3
06	240	2.6					2.9	3.2
07	250	5.4	240	---	140	1.9	2.9	3.4
08	260	7.2	230	4.0	110	2.5	3.8	3.5
09	260	7.6	220	4.3	110	3.0	4.0	3.5
10	280	7.9	200	4.6	100	3.2	4.6	3.3
11	280	8.2	200	4.7	100	3.4	5.0	3.3
12	290	8.7	200	4.7	100	3.5	5.0	3.3
13	300	9.1	200	(4.8)	110	(3.5)	5.0	3.1
14	300	9.3	200	4.6	110	3.5	4.5	3.0
15	320	9.0	200	4.5	110	3.3	4.0	2.9
16	290	9.4	200	4.3	110	3.1	4.0	3.0
17	280	8.2	220	4.0	110	2.7	4.2	2.9
18	260	8.4	240	---	110	---	3.8	3.0
19	240	8.7					3.1	3.2
20	230	8.3					3.0	3.3
21	220	8.1					3.0	3.5
22	210	6.0					2.6	3.4
23	220	4.8					2.4	3.3

Time: 45.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 36

Rarotonga I. (21.3°S, 159.8°W) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.1						3.0
01	260	3.1						3.1
02	260	3.0						3.1
03	250	3.0						3.2
04	240	2.9						3.4
05	250	2.6					2.0	3.15
06	250	2.5					1.7	3.1
07	250	4.3	250	2.2	---	E	2.8	3.5
08	250	5.5	230	3.5	120	2.3	3.1	3.5
09	260	6.4	240	4.2	105	2.8	3.3	3.5
10	260	6.7	230	4.3	100	3.0	3.7	3.5
11	270	6.7	230	4.4	100	3.2	3.5	3.5
12	270	6.3	210	4.4	100	3.3	3.7	3.5
13	280	6.2	220	4.4	100	3.3	4.0	3.35
14	280	6.4	230	4.4	100	3.2	3.9	3.4
15	280	6.5	240	4.2	100	3.0	3.8	3.4
16	280	6.5	250	4.0	110	2.7	3.9	3.4
17	250	6.1	250	3.0	115	2.0	3.3	3.4
18	240	6.1					3.0	3.4
19	230	5.1					3.0	3.4
20	240	3.8					2.5	3.2
21	260	3.4					2.4	3.0
22	250	3.2					1.8	3.1
23	250	3.2						3.2

Time: 157.5°W.
Sweep: 1.5 Mc to 20.0 Mc in 5 minutes, manual operation.

Table 37

Johannesburg, Union of S. Africa (26.2°S, 28.1°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	2.6						3.1
01	---	2.5						3.1
02	---	2.6						3.1
03	<240	2.6						3.1
04	<230	2.6						3.2
05	---	2.3					3.1	3.1
06	---	2.2					2.3	3.15
07	230	4.0			---	---		3.4
08	230	5.1	210	3.1	120	2.2		3.5
09	260	5.4	220	3.9	110	2.7		3.4
10	270	5.8	220	4.2	110	3.0		3.4
11	270	5.8	210	4.3	110	3.1		3.4
12	280	6.0	210	4.4	110	3.2		3.3
13	280	5.9	200	4.3	110	3.2		3.3
14	270	5.9	200	4.2	110	3.1	3.9	3.2
15	260	5.9	200	4.0	110	2.9	3.1	3.3
16	250	6.0	220	3.6	110	2.5	3.2	3.3
17	230	5.7	---	---	120	2.0	2.6	3.4
18	210	4.4						3.4
19	<220	3.0						3.35
20	230	2.7						3.3
21	230	2.8						3.3
22	220	2.8						3.3
23	<230	2.7						3.2

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 38

Capetown, Union of S. Africa (34.2°S, 18.3°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	<250	2.4						3.1
01	<260	2.3						3.0
02	<260	2.4						3.0
03	250	2.6						3.0
04	250	2.6						3.1
05	250	2.6						3.2
06	<240	2.4						3.1
07	<240	2.2					3.0	3.1
08	220	3.9			---	1.7		3.5
09	230	4.8	210	2.8	120	2.1		3.5
10	250	5.4	220	3.7	120	2.6		3.4
11	260	5.5	220	4.1	110	2.9		3.4
12	280	5.8	220	4.2	110	3.0		3.3
13	280	5.7	220	4.2	110	3.1		3.2
14	280	5.8	220	4.1	110	3.0	3.6	3.3
15	270	6.2	220	4.0	110	2.8	3.8	3.2
16	260	6.2	220	3.6	120	2.6	3.2	3.3
17	230	5.9	230	2.8	120	2.1	2.3	3.4
18	220	4.7			---	---	1.4	3.4
19	220	3.0						3.4
20	240	2.6					2.0	3.2
21	230	2.5						3.2
22	<240	2.4						3.3
23	<250	2.5						3.2

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 39

Rarotonga I. (21.3°S, 159.8°W) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.0						2.95
01	280	3.0						3.0
02	260	3.2						3.1
03	250	3.2						3.2
04	240	3.2					1.8	3.25
05	250	2.8					1.8	3.1
06	250	2.9					1.6	3.1
07	250	4.5	---	---	---	1.3	3.0	3.45
08	250	6.0	250	3.5	120	2.3	3.8	3.5
09	260	6.5	240	4.0	115	2.7	3.8	3.5
10	260	7.2	230	4.3	110	3.0	3.7	3.5
11	260	6.8	230	4.4	105	3.1	3.9	3.5
12	270	6.5	220	4.4	110	3.2	3.8	3.4
13	270	6.4	210	4.4	110	3.2	3.8	3.4
14	280	6.6	220	4.3	105	3.0	4.0	3.35
15	280	6.8	230	4.0	---	2.8	3.9	3.35
16	260	6.5	250	4.0	---	2.5	3.9	3.3
17	250	6.8	250	3.5	---	1.8	3.7	3.4
18	230	6.2					3.1	3.3
19	230	5.2					3.1	3.4
20	230	3.6					2.5	3.15
21	240	3.5					1.8	3.1
22	250	3.1					1.7	3.1
23	250	3.2					1.8	3.1

Time: 157.5°W.
Sweep: 1.5 Mc to 20.0 Mc in 5 minutes, manual operation.

Table 40

Sao Paulo, Brazil (23.5°S, 46.5°W) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	4.5						3.3
01	220	4.4						3.4
02	220	3.6						3.3
03	220	3.6						3.5
04	240	2.9						3.5
05	---	2.0						(3.2)
06	---	2.1						3.15
07	220	4.8						3.6
08	230	6.2	220	---	120	2.3		3.5
09	260	6.8	210	---	100	2.8		3.5
10	250	7.7	200	(4.3)	100	3.0		3.5
11	260	8.3	200	4.3	100	3.1		3.4
12	260	9.4	180	4.3	100	3.2		3.4
13	260	9.2	200	4.3	100	3.1		3.4
14	260	9.2	200	4.2	100	3.0		3.3
15	250	9.5	220	---	100	2.8		3.3
16	230	9.6	220	---	110	2.4		3.3
17	210	8.8					2.6	3.6
18	200	6.6					3.0	3.7
19	200	4.9					2.2	3.5
20	220	5.0					2.7	3.1
21	220	5.1						3.2
22	220	5.4						3.4
23	220	5.0						3.5

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 41

Oelhi, India (28.6°N, 77.1°E) May 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	320	4.9						3.0
01	320	4.8						3.0
02	(280)	4.4						(3.25)
03								
04	280	4.2						3.25
05	260	4.4						3.4
06	240	5.5						3.6
07	240	6.3						3.6
08	280	6.4						3.25
09	300	7.0						3.1
10	300	7.5						3.1
11	320	8.0						3.0
12	360	9.0						2.8
13	320	10.0						3.0
14	300	10.4						3.1
15	280	10.8						3.25
16	290	10.2						3.2
17	280	8.8						3.25
18	260	8.4						3.4
19	260	7.8						3.4
20	260	6.4						3.4
21	280	5.8						3.25
22	300	5.2						3.1
23	310	5.0						3.0

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 42

Ahmedabad, India (23.0°N, 72.6°E) May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	4.2					3.8	2.9
01	290	4.0					4.0	3.1
02	280	3.5					3.9	3.1
03	280	3.4					3.8	3.05
04	270	3.2					3.6	3.2
05	265	3.1					3.3	3.2
06	240	4.9	---	---	---	1.8	3.5	3.5
07	245	5.7	230	3.7	110	2.3	4.3	3.5
08	280	5.9	210	4.2	110	2.8	5.6	3.4
09	305	6.3	210	4.4	107	3.1	5.7	3.05
10	350	7.4	200	4.5	107	3.3	5.9	2.8
11	375	8.5	210	4.6	107	3.4	6.0	2.7
12	370	10.0	215	4.6	107	3.5	5.4	2.75
13	370	10.9	240	4.6	107	3.4	6.0	2.85
14	335	11.7	230	4.5	107	3.3	4.9	2.95
15	300	12.2	230	4.4	107	3.2	4.1	3.15
16	280	12.1	220	4.2	110	2.9	4.0	3.25
17	260	>11.0	225	3.9	115	2.4	4.0	3.25
18	250	9.7	---	(3.6)	---	---	3.8	3.3
19	225	8.8					3.7	3.45
20	230	>7.0					3.9	3.3
21	260	5.2					3.7	2.95
22	300	4.4					4.1	2.9
23	310	4.2					4.0	2.8

Time: 75.0°E.
Sweep: 0.6 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 43

Calcutta, India (22.9°N, 88.5°E) — May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.6					3.6	2.95
01	260	(4.3)					3.6	(3.1)
02	245	(4.3)					3.2	3.25
03	(255)	(3.7)					3.3	---
04	250	(3.6)					3.5	(3.1)
05	<250	3.5					3.0	3.15
06	240	5.2	---	---	110	(1.9)	3.6	3.35
07	<250	6.5	220	(4.0)	---	2.5	4.1	3.4
08	270	(6.6)	220	4.4	100	3.0	4.3	3.3
09	320	6.8	200	4.5	100	3.2	4.2	3.0
10	340	9.1	190	4.5	100	3.4	4.3	2.75
11	350	10.4	190	4.6	100	3.6	4.2	2.85
12	350	(11.5)	200	4.6	100	3.6	4.5	2.9
13	340	(11.6)	200	4.6	100	3.5	4.7	(2.9)
14	330	(11.8)	200	4.5	100	3.4	5.1	2.9
15	300	(11.6)	210	4.5	100	3.2	4.9	3.15
16	280	(11.5)	200	4.3	100	3.0	5.0	3.2
17	260	(11.5)	220	4.1	100	2.5	3.9	3.3
18	240	11.2	---	---	---	---	4.2	3.25
19	230	10.6					3.5	3.3
20	220	9.4					3.5	3.25
21	240	(5.8)					3.8	3.1
22	270	(4.8)					3.2	2.9
23	<280	(4.8)					3.4	(2.95)

Time: 90.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 44

Bombay, India (19.0°N, 73.0°E) — May 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06:30	270	4.6						3.35
07	300	5.1						3.1
08:30	300	6.1						3.1
09	330	6.7						2.95
10	360	7.2						2.8
11	360	8.4						2.8
12	390	9.2						2.65
13	390	10.4						2.65
14	(420)	(10.8)						(2.55)
15	---	---						---
16	---	---						---
17	390	10.1						2.65
18	390	9.4						2.65
19	360	8.6						2.8
20	330	8.2						2.95
21	300	6.7						3.1
22	300	5.4						3.1
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 45

Madras, India (13.0°N, 80.2°E) — May 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06	300	6.2						3.1
07	330	7.2						2.95
08	360	7.9						2.8
09	390	8.1						2.65
10	420	7.6						2.55
11	420	7.5						2.55
12	420	7.5						2.55
13	420	7.8						2.55
14	420	8.2						2.55
15	420	8.9						2.55
16	420	9.2						2.55
17	390	10.4						2.65
18	360	10.2						2.8
19	360	8.7						2.8
20	360	7.6						2.8
21	(330)	>6.5						(2.95)
22								
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 46

Tiruchy, India (10.8°N, 78.8°E) — May 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06	390	5.8						2.65
07	420	7.0						2.55
08	480	7.6						2.3
09	510	7.7						2.25
10	510	7.5						2.25
11	540	7.4						2.2
12	540	7.5						2.15
13	540	7.6						2.15
14	540	8.1						2.15
15	510	8.3						2.25
16	510	8.6						2.25
17	480	8.6						2.3
18	480	9.0						2.3
19	420	8.3						2.45
20	420	7.5						2.55
21	(420)	(7.0)						(2.55)
22								
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 47

Sao Paulo, Brazil (23.5°S, 46.5°W) — May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	4.4						3.3
01	220	4.0						3.4
02	220	3.8						3.5
03	220	3.7						3.5
04	220	2.9						3.6
05	290	2.2						3.3
06	280	2.4						3.2
07	210	5.4	---	---	---	E		3.7
08	220	6.3	200	---	110	2.4		3.6
09	250	6.7	200	---	100	2.7		3.5
10	260	7.8	190	4.3	100	3.0		3.4
11	260	9.0	180	4.4	100	3.1		3.4
12	260	9.4	180	4.4	100	3.3		3.4
13	260	9.8	180	4.3	100	3.2		3.3
14	260	9.7	180	4.2	100	3.1		3.25
15	250	10.0	200	(3.8)	110	2.8		3.35
16	220	10.0	220	---	120	2.5		3.5
17	200	9.4					2.7	3.6
18	200	7.5					2.2	3.7
19	200	5.8					2.3	3.55
20	220	4.8					2.3	3.2
21	220	5.2					2.7	3.4
22	210	4.9						3.5
23	220	4.4						3.4

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 48

Sao Paulo, Brazil (23.5°S, 46.5°W) — April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	6.1					3.4	3.4
01	220	5.4					3.7	3.4
02	220	5.2						3.2
03	220	5.8						3.5
04	240	3.8					3.8	3.4
05	260	3.3						3.2
06	250	3.8						3.3
07	220	6.3			---	---		3.7
08	240	7.2	210	---	100	2.6		3.6
09	260	7.5	210	---	100	2.9	3.2	3.4
10	280	8.8	200	4.4	100	3.2	3.6	3.3
11	260	10.2	180	4.4	100	3.4	4.0	3.3
12	270	10.2	180	4.5	100	---	4.1	3.2
13	300	10.8	180	4.4	100	---	4.0	3.0
14	290	11.4	200	4.4	100	---	4.3	3.1
15	260	12.2	220	---	100	2.9	4.0	3.2
16	230	12.4	210	---	100	---	3.7	3.4
17	220	11.2			---	---	3.6	3.55
18	200	10.0					4.1	3.6
19	200	8.0					3.2	3.6
20	200	7.0					2.9	3.35
21	220	7.2					4.0	3.3
22	220	7.0					3.1	3.4
23	220	6.7					3.4	3.4

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 49

Townsville, Australia (19.3°S, 146.7°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	265	4.3					2.3	3.0
01	260	4.2					2.1	3.1
02	250	4.0					2.4	3.2
03	245	3.8					2.7	3.2
04	240	3.5					2.6	3.1
05	250	2.9					2.2	3.2
06	240	3.2			---	E	2.0	3.3
07	230	>5.0	---	---	110	2.0	3.0	3.6
08	270	6.0	230	3.9	100	2.5	3.7	3.5
09	280	6.7	220	4.2	100	2.9	4.2	3.4
10	280	7.5	200	4.3	100	3.2	4.3	3.2
11	280	7.6	200	4.4	100	3.3	4.0	3.2
12	290	8.1	190	4.4	100	3.4	4.0	3.1
13	280	8.0	190	4.4	100	3.3	3.8	3.2
14	290	8.0	210	4.3	100	3.3	3.8	3.1
15	280	8.2	225	4.2	100	3.1	4.2	3.2
16	260	8.5	230	4.0	100	2.9	4.3	3.4
17	250	>8.4	235	3.6	100	2.4	4.3	(3.45)
18	230	>7.1	---	---	115	1.6	3.8	(3.4)
19	230	5.8			---	E	3.4	3.25
20	240	4.8					3.1	3.0
21	280	>4.4					2.6	3.0
22	270	>4.4					2.6	3.0
23	280	4.3					2.6	3.0

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 50

Brisbane, Australia (27.5°S, 153.0°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	4.0					2.5	3.0
01	270	4.0					2.8	3.0
02	270	3.8					2.4	3.1
03	260	3.7					2.6	3.0
04	265	3.5						3.1
05	250	3.2						3.15
06	230	4.1			---	---		3.4
07	235	5.1	250	---	120	2.3	3.4	3.4
08	270	5.8	230	4.0	120	2.7	4.0	3.4
09	290	6.2	225	4.2	120	3.0	4.1	3.4
10	285	6.5	220	4.3	---	3.0	4.3	3.3
11	300	6.5	220	4.4	---	---	4.6	3.2
12	290	6.8	200	4.3	---	---	4.4	3.3
13	290	6.8	210	4.3	---	---	(4.6)	3.3
14	290	6.6	210	4.3	---	---	(4.2)	3.25
15	290	6.7	220	4.2	---	---	(4.0)	3.2
16	275	6.5	235	4.0	120	2.8	3.9	3.2
17	(250)	6.7	---	---	---	---	4.0	3.3
18	240	6.8			---	---	3.4	3.35
19	240	5.8					2.3	3.2
20	250	4.7						2.9
21	290	4.4					2.3	2.95
22	(300)	4.3						2.9
23	285	4.2						3.0

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 51

Canberra, Australia (35.3°S, 149.0°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	3.8					2.9	3.0
01	---	3.7					2.9	3.0
02	---	3.6					2.1	3.0
03	<250	3.4					2.0	3.1
04	(240)	3.1					2.8	3.05
05	(240)	3.0						3.0
06	(250)	3.2			---	---		3.3
07	240	4.2	235	---	---	2.1		3.5
08	260	4.7	230	3.8	110	2.5	3.3	3.3
09	300	5.2	220	4.0	110	2.8	3.5	3.25
10	300	5.7	210	4.2	110	3.0	4.0	3.3
11	290	6.0	200	4.2	105	3.1	4.1	3.3
12	295	5.8	200	4.3	110	(3.2)	4.8	3.15
13	300	6.0	200	4.2	105	3.2	4.2	3.2
14	300	6.1	220	4.2	105	3.1	4.2	3.2
15	285	6.0	210	4.1	110	3.0	3.7	3.2
16	265	6.0	220	4.0	110	2.7	3.3	3.3
17	250	6.0	240	(3.6)	---	2.3		3.3
18	240	6.1	---	---	---	2.5		3.3
19	230	5.8			---	---	2.6	3.2
20	---	5.0					2.1	3.2
21	---	4.3						3.1
22	---	4.0						3.0
23	---	4.0					2.3	3.0

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 52

Hobart, Tasmania (42.9°S, 147.3°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	2.5						2.9
01	270	2.5						2.9
02	270	2.0						2.9
03	270	2.0						3.0
04	280	2.0						2.9
05	280	1.8						3.0
06	250	2.4			---	1.2		3.0
07	230	3.5			100	2.0		3.1
08	220	4.2			100	2.3		3.1
09	220	4.7	215	4.0	100	2.6		3.1
10	340	5.0	200	4.0	100	2.9		2.9
11	335	5.4	200	4.1	100	3.0		2.95
12	330	5.5	200	4.2	100	3.0		3.0
13	325	5.6	200	4.1	100	3.0		3.0
14	315	5.6	200	4.1	100	3.0		3.0
15	300	5.6	200	4.0	100	2.8		3.0
16	220	5.4	200	4.0	100	2.5		3.0
17	230	5.4			100	2.1		3.0
18	240	5.5			100	1.5		3.0
19	240	5.5						3.0
20	240	5.0						3.0
21	245	4.0						3.0
22	260	3.2						3.0
23	285	2.6						2.9

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

TABLE 53

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

h' F2 (Characteristic), Km (Unit), December (Month), 1955

Observed at Washington, D. C.

Lat. 38.7°N, Long. 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	270	280	210	270	(280)A	270	280	260	230	240	240	250	250	260	260	250	250	220	200	220	(270)S	290	290	270
2	250	240	(290)S	280	260	240	(240)S	240	230	250	220N	240	240	230	250	230	220	210	230	230	(260)S	(260)S	(280)S	(300)S
3	270	270	270	260	250	260	260	240	220	220	L	240	(240)L	240	(230)L	230	230	210	(230)A	250	240	240	290	280
4	280	270	240	230	250	260	250	230	220	220	L	240	240	240	(230)L	230	230	210	220	240	230	250	260	290
5	280	(290)S	290	(290)A	250	240	250	240	220	220	220	240	240	250	250	230	220	220	230	230	270	280	270	(300)S
6	280	270	270	280	270	250	220	(270)S	230	240	240	250	240N	260	250	240	240	240	220	230	(240)S	250N	280	290
7	(320)S	(320)S	(300)S	280	250	240	230	240	230	240	240	240	240	240	240	220	220	210	230	220	220	250	260	(290)S
8	270	(290)S	260	260	260	250	240	230	220	220	220	230	240	230	(230)L	240	230	230	210	220	220	240	250	280
9	270	250	280	(280)S	(310)S	(300)S	250	230	220	220	220N	240	(250)L	230	240	210	220	200	230	230	250	230	250	260
10	270	290	280	260	240	250	(250)S	250	210	220	240	250	240	(240)L	240	230	220	220	220	230	220	240	250	270
11	280	200	300	300	(300)A	(290)A	(280)A	240	220	220	230	240	(250)A	(250)A	(240)A	220	(230)A	(240)A	220	220	230	250	240	230
12	240	270	(290)S	280	270F	250	240	230	220	230	220	250	230	(250)L	230	230	210	200	230	220	220	240	270	260
13	260	270	270	260	260	240	230	230	210	220	220	250	250	240	230	230	230	210	230	220	240	240	260	(280)S
14	280	280	270	260	250	240	240	240	220	210	220	230	240	250	230	220	220	220	210	230	240	260	270	280
15	280	270	290	270	260	240	220	220	210	220	230	(240)L	230	L	240	240	240	210	(220)A	220	230	240	270	260
16	(300)S	(300)S	280	260	250	260	240	230	220	230	220N	240	230	240	250	240	240	210	210	210	230	230	270	270
17	290	260	290	280	260	250	240	240	210	230	240	220	260	(230)FN	230	230	220	220	210	(220)A	240	230	280	280
18	290	270	270	240	240	250	270	220	230	220	230N	220	220N	250	230	220	220	210	210	210	240	220	(250)S	280
19	280	260	280	280	230	250	(260)S	250	220	240	250	240	250	260	240	240	220	220	200	210	220	230	250	(280)S
20	280	280	280	250	250	240	240	250	230	250	260	260	240	240	240	240	230	240	220	220	220	230	260	250
21	280	310	300	210	260	280	250	250	220	250	230	250	260	240	210	230	220	220	240	230	230	240	240	240
22	270	300	300	290	270	260	230	220	240	(240)L	230	230	270	230	230	220	230	220	220	230	(220)A	230	(240)S	(300)S
23	(300)S	(300)S	280	270	260	250	260	230	210	220	220	240	240	260	220	230	240	210	220	240	230	230	250	280F
24	270F	280	270	290	270	260	240	220	210	220	220	220	240	230	250	250	230	210	220	240	240	230	270	260
25	250	290	290	290	300	280	240	240	230	240	220	L	250	260	240	240	230	220	220	230	230	240	220	270
26	300	280	280	(280)A	270	250	240	250	220	230	240	240	240	250	L	240	240	240	220	220	210	250	260	260
27	(290)S	320	290	250	220	220	270	260	240	220N	230	230	220N	(240)LN	230	220	210	230	220	220	210	(250)S	260	(270)S
28	280	(300)S	(300)S	290	270	250	250	250	230	240	240	230	230	260	240	230	220	210	220	230	240	C	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	250	230	240	250	230	210	230	230	220	240	270	300
30	300	300	290	260	250	240	230	220	220	230	210	240	(250)LN	230	250	220	220	200	240	230	240	[260]A	280	280
31	310	320	300	270	250	230	[240]A	240	230	(240)L	230	240	240	250	(250)L	240	230	210	210	230	240	(280)A	290	280
Median	280	280	280	270	260	250	240	240	220	230	230	240	240	240	240	230	230	210	220	230	230	240	260	280
Count	30	30	30	30	30	30	30	30	30	30	28	29	31	30	30	31	31	31	31	31	31	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 54

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

foF2 (Characteristic), Mc (Unit), December (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.7	3.8	4.1	4.3	4.2	3.7	3.6	4.7	7.9	9.7	9.7	10.3	10.5	10.2	11.2	11.0	12.9	11.3	9.8 $^{J}_{S}$	7.0	(3.2) $^{F}_{S}$	3.3 $^{F}_{B}$	(3.9) ^{F}	4.7 $^{J}_{F}$
2	(5.0) $^{P}_{F}$	4.1 ^{F}	(3.8) ^{F}	4.1 ^{F}	4.0 $^{F}_{S}$	(3.9) ^{F}	(3.7) ^{F}	(4.5) $^{F}_{S}$	7.7	10.5	9.0 ^{H}	11.0	11.2	10.9	11.0	10.5	9.4	8.4	6.6	5.8	4.2	3.9	3.3	3.3
3	3.4	3.5 ^{F}	3.4	3.5 ^{F}	3.5 ^{F}	3.3 ^{F}	3.4 ^{F}	4.7 ^{F}	7.0	8.4	9.8	10.3	10.6	11.1	11.2	10.0	9.7	9.2	8.0	6.6	(6.0) $^{F}_{S}$	4.5 ^{F}	(3.8) $^{F}_{S}$	4.2
4	(4.3) $^{F}_{S}$	4.7	4.6	4.4	3.9	3.8	3.7	4.8	7.6	8.4	9.8	11.0	10.4	10.0	10.0	10.0	9.6	8.4	6.0	(4.8) $^{F}_{S}$	3.9	3.7	3.2	3.0
5	3.1	3.3	3.7	3.9	3.8	3.4	3.4	4.6	7.6	8.4	9.0	9.0	9.0	9.6	10.2	9.4	8.8	8.2	6.2	5.5	4.6	4.3	4.2 ^{F}	4.5
6	(4.4) $^{F}_{S}$	(3.9) $^{F}_{S}$	(3.8) $^{F}_{S}$	(3.8) $^{F}_{S}$	(4.0) $^{F}_{S}$	4.2 ^{F}	4.1	4.3	7.2	8.5	9.7	10.3	9.9 ^{H}	10.6	10.5	9.6	9.1	8.5	7.1	5.0	4.4	3.5 ^{F}	2.9 ^{F}	2.9
7	2.6 ^{F}	3.0 ^{F}	3.2 ^{F}	(4.0) $^{J}_{F}$	(4.6) $^{F}_{S}$	(4.8) $^{F}_{S}$	3.7 ^{F}	(4.4) $^{P}_{S}$	6.8	(9.2) $^{P}_{S}$	8.6	10.2	10.0	10.2	10.2	9.2	8.8	8.0	6.5	5.4	4.3	4.1	3.5 ^{F}	3.3 ^{F}
8	3.4 ^{F}	3.8 ^{F}	4.2 ^{F}	4.5	4.0 ^{F}	4.1 ^{F}	3.8	4.7	7.2	8.4	9.6	9.2	10.0	9.5	9.4	9.0	9.0	8.0	7.0	5.7	(5.0) $^{F}_{S}$	3.8 ^{F}	3.9 ^{F}	3.4 ^{F}
9	3.6 ^{F}	3.3 ^{F}	3.1	3.1	3.0 ^{F}	3.2 ^{F}	(3.5) $^{F}_{S}$	4.6 ^{F}	7.8	9.1	9.0 ^{H}	9.8	10.7	10.8	11.0	9.7 $^{J}_{S}$	9.0	8.2	7.4	6.6	5.9	4.6	3.7	3.4 ^{F}
10	3.4 ^{F}	3.3 ^{F}	3.5 ^{F}	3.5 ^{F}	3.5 ^{F}	3.3 ^{F}	3.2 ^{F}	4.3	6.9	8.4	9.0	10.2	9.6	10.0	9.8	10.0	9.6	8.4	6.8	6.2	4.6	3.5 ^{F}	3.1 ^{F}	3.0 ^{F}
11	3.0 ^{F}	3.0 ^{F}	3.0 ^{F}	3.1 ^{F}	3.3 ^{F}	3.3 ^{F}	3.3 ^{F}	4.3	7.2	8.6	9.4	9.7	10.2	10.0	9.8	9.2	9.2	9.0	6.7	(6.0) $^{F}_{S}$	4.7	4.4	3.8 ^{F}	3.7
12	3.7	3.1 ^{F}	(3.0) $^{F}_{S}$	2.9 ^{F}	(3.3) ^{F}	3.6 ^{F}	3.5	4.5	7.2	9.0	8.8	9.4	9.4	10.2	9.6	9.9	9.2	7.7	6.8	6.5	4.6	3.8	3.7 ^{F}	3.4 ^{F}
13	3.0 ^{F}	3.0 ^{F}	3.2 ^{F}	3.9 ^{F}	4.0 ^{F}	3.6 ^{F}	3.4 ^{F}	4.2 ^{F}	6.2	7.8	7.5	9.4	10.4	9.7	8.6	8.4	9.2	7.8	6.0	5.0	3.8 ^{F}	3.5 ^{F}	3.0 ^{F}	(3.0) ^{F}
14	3.0	3.0 ^{F}	3.3 ^{F}	3.7 ^{F}	4.0	3.8	3.7 ^{F}	4.6	7.5	8.4	8.4	8.2	9.7	(8.8) $^{P}_{F}$	8.4	8.2	8.0	7.9	5.3	4.7	3.8	3.5	3.0	2.9
15	3.1	3.2 ^{F}	3.3 ^{F}	3.9 ^{F}	4.2	4.3	4.1 ^{F}	4.4	7.0	7.8	8.0	8.2	9.6	8.6	8.8	8.4	(9.2) $^{P}_{S}$	8.4	6.8	(6.0) $^{P}_{S}$	4.8	(3.9) $^{F}_{S}$	3.5 ^{F}	3.1 ^{F}
16	3.1 ^{F}	3.2 ^{F}	3.8 ^{F}	3.8 ^{F}	4.3	3.9 ^{F}	4.0	4.3 ^{F}	7.6	8.7	8.2 ^{H}	10.3	9.9	9.8	9.4	(9.4) $^{S}_{P}$	10.3	8.8	7.0	5.9	4.8	3.3 ^{F}	3.2	3.2 ^{F}
17	3.1 ^{F}	3.2	3.3	3.5	3.4	3.8 ^{F}	3.2	3.8	6.2	8.0	9.5	8.6	9.7	(9.0) $^{F}_{H}$	9.0	9.7	8.8	7.7	6.3	5.0	4.3 ^{F}	2.9 ^{F}	3.0	3.0 ^{F}
18	3.3	3.4	3.6	3.9	3.7 ^{F}	3.5 ^{F}	3.5 ^{F}	4.4	6.9	7.8 ^{V}	7.8 ^{H}	8.5	10.3 ^{H}	9.8	9.4	8.3	8.6	7.2	6.4	4.6	4.8	4.0	2.8 ^{F}	2.9
19	3.2 ^{F}	(3.1) ^{F}	3.4 ^{F}	3.6 ^{F}	3.4 ^{F}	3.0 ^{F}	(2.8) $^{F}_{S}$	3.8 ^{F}	6.6	7.8	9.0	9.4	10.3	9.8	10.7	10.5	(9.8) $^{P}_{S}$	9.5	8.2	5.0	4.0	3.6	(2.6) $^{F}_{S}$	2.7 ^{F}
20	3.4 ^{F}	3.9 ^{F}	4.4	4.5	3.9 ^{F}	3.7 ^{F}	3.6 ^{F}	4.1 ^{F}	7.2	8.0	8.5	9.6	10.3	9.2	8.6	9.0	8.2	7.2	6.7	6.0	3.9	3.6 ^{F}	3.4 ^{F}	(3.6) $^{F}_{S}$
21	2.8 ^{F}	2.6 ^{F}	2.7 ^{F}	3.5 ^{F}	2.9 ^{F}	(2.8) ^{F}	(3.8) $^{J}_{S}$	(4.2) $^{J}_{S}$	6.7	8.4	7.8	9.7	10.5	10.3	9.0	9.0	7.4	(7.0) $^{F}_{S}$	6.2 $^{J}_{S}$	6.3	4.8	(3.9) $^{F}_{S}$	2.9 ^{F}	2.6 ^{F}
22	2.6 ^{F}	3.5 ^{F}	3.9	4.1 ^{F}	3.9	4.6	4.5 ^{F}	4.3	6.3	7.1	7.2	8.5	9.3	8.4	7.6	8.4	8.2	6.3	5.4	6.0	4.8	3.1 ^{F}	2.3	2.5 ^{F}
23	2.7	3.0 ^{F}	3.6 ^{F}	(3.6) ^{F}	(3.6) ^{F}	(3.8) ^{F}	(3.8) ^{F}	4.8 ^{F}	6.5	7.1	7.4 ^{B}	7.9	8.7	9.2	7.3	7.9	(8.1) $^{J}_{F}$	6.8	5.9	5.6	4.4	3.5	2.7	2.5 ^{F}
24	2.8 ^{F}	2.9	2.9	3.2	(3.9) $^{J}_{S}$	(3.9) $^{J}_{S}$	3.9 ^{F}	3.9 ^{F}	6.2	8.0	7.8 ^{F}	8.0	8.0	8.2	8.5	9.0	8.6	7.6	6.0	5.6	4.7	3.9	3.6 ^{F}	3.8 ^{F}
25	4.3 ^{F}	3.7 ^{F}	4.3 ^{F}	4.1 ^{F}	4.3 ^{F}	4.1 ^{F}	3.8 ^{F}	3.9	6.8	9.0	8.2	8.9	10.5	11.0	10.5	9.5	9.0	8.0	6.2	5.8	4.8	4.2 ^{F}	3.6 ^{F}	2.3
26	2.3	2.3	2.3	2.6 ^{F}	3.0	3.0	3.1	3.2 ^{F}	5.6	7.8	8.6	9.5	9.8	10.1	(9.5) ^{S}	9.0	8.6	8.6	7.8	7.7	(6.2) $^{P}_{S}$	5.3	4.0 ^{F}	(3.5) ^{F}
27	3.1	3.4	4.3	4.8	4.9	3.6 ^{F}	3.1	(3.3) $^{F}_{S}$	6.7	8.3 ^{H}	8.6	9.0	(9.0) $^{J}_{H}$	(8.8) ^{H}	9.1	8.0	(7.6) ^{S}	(7.8) ^{S}	7.0	6.3	4.3	2.8 ^{F}	2.8 ^{F}	2.6
28	2.5	2.3	2.3	2.6	3.0	3.0	2.9	3.2	6.2	8.4	8.0	8.8	9.2	9.6	9.1	9.2	9.0	7.3	6.1	5.4	4.6	C	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	9.2	8.4	8.2	8.9	9.2	6.9	5.6	5.2	4.2	3.3 ^{F}	2.9	2.8
30	2.9	2.8 ^{F}	3.0	3.4	3.8	3.7	3.5	3.8	6.7	8.0	7.5	9.6	(10.0) $^{P}_{H}$	9.0	9.2	9.0	9.0	7.0	6.0	5.0	3.8 ^{F}	2.9	2.7	2.4
31	2.3	2.6 ^{F}	3.0	3.3	3.9	3.4 ^{F}	2.9	3.1	6.2	7.2	7.9	9.0	9.0	9.8	9.0	9.6	9.0	(7.2) ^{S}	5.8	5.0	4.0	3.5	3.4	3.8
Median	3.1	3.2	3.4	3.8	3.9	3.7	3.6	4.3	6.9	8.4	8.6	9.4	9.9	9.8	9.4	9.2	9.0	8.0	6.5	5.7	4.6	3.6	3.2	3.0
Count	30	30	30	30	30	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 55

Central Radio Propogation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

foF2 (Characteristic), Mc (Unit), December (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.S., J.W., E.W.

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	3.6	3.9 JS	4.2	4.3	3.8	3.4	3.6	6.6	8.5	9.8	9.9	10.1	10.2	10.8	11.4	11.6	12.4	10.8	8.0	4.8 F	(3.1) F	3.7 F	(4.6) F	(4.9) FS
2	(5.0) PF	(4.3) F	3.8 F	4.2 F	3.9 F	(3.5) F	(3.2) FS	(6.3) FS	9.2	11.7	11.2	11.4	10.8	10.8	10.7	10.2 J	9.4	6.7	5.9	4.8	3.5	3.4	3.2	3.4
3	3.3 F	3.3 F	3.4 F	3.5 F	3.5 F	3.2 F	3.6 F	6.5	8.4	8.8	11.2	10.3	11.4	11.3	10.7	9.2	10.0	8.4	7.0	5.6	(5.0) FS	3.8 FS	4.2	4.3
4	4.4 FS	4.6	4.4	4.0	3.9	3.8	3.8	6.7	8.6	9.2	10.5	10.2	10.2	9.7	9.4	9.8	9.0	7.0	5.2	4.5	3.8	3.4	3.1	3.1
5	3.2	3.4	3.8	3.9	3.7	3.5	3.3	6.2	8.3	8.6	9.1	8.8	9.4	10.0	9.2	9.3	8.4	(6.8) S	6.4	4.6	4.2	4.4	4.5	4.4 F
6	(4.3) FS	(3.7) FS	(3.5) FS	(4.0) FS	4.3 FS	4.3	3.6	3.6	8.2	9.6	9.6	10.2	10.5	10.5	9.9	9.0	8.4	7.8 JS	5.6 S	4.5 FS	(3.7) FS	3.1 FS	2.8 F	2.8 FS
7	2.7 FS	3.1 F	(3.5) FS	(4.5) FS	(4.8) FS	4.1 F	(3.5) FS	6.0	7.6	8.7	9.4	9.8	(9.9) JS	10.0	9.6	8.8	8.4	6.9	5.8	4.3	4.3	3.8 F	3.4 F	3.5 F
8	3.6 FS	4.2 F	4.4	4.4	4.0	4.0	3.7	6.2	8.2	9.0	9.8	9.6	9.8	9.4	9.2	8.8	8.7	8.0	6.5 S	5.6	(4.3) FS	3.7 FS	(3.5) FS	3.6 FS
9	3.4 FS	3.3 FS	3.1	3.0	3.0 FS	3.4 FS	(3.5) FS	6.2 F	8.7	10.0	9.2	10.0	11.3	11.0	10.8	9.7 JS	9.0	8.0	6.9	5.5	5.2	3.9	3.5 F	3.5
10	3.3 F	3.3 F	3.5 F	3.5 F	3.3 F	3.3 F	3.2 F	6.0	7.8	8.5	9.8	9.8	10.1	10.0	9.6	9.8	9.5	7.6	6.6	5.0	3.7 F	3.3 F	3.2 F	3.0 F
11	3.0 F	2.9 F	2.9 F	3.3 F	3.5 F	3.4 F	3.2 F	6.2	8.0	8.6	9.6	9.8	10.0	10.7	9.8	9.4	9.2	7.6	6.6	5.6 F	4.2	4.1	4.2	3.9 FS
12	(3.3) FS	(3.0) FS	(2.9) FS	(3.0) F	3.5 F	3.5	3.5	6.3	8.2	8.8	9.4	9.4	9.8	10.0	10.0	10.0	8.8	7.4	6.6	5.4	4.3	3.9	3.7 F	3.1 F
13	2.9 F	3.0 F	(3.6) F	4.0 F	3.8 F	3.7 F	3.7 F	5.6	7.8	8.0	8.5	9.5	10.2	9.2	8.4	9.0	8.9	6.2	5.8	4.2	3.5 F	3.1 F	2.8 F	3.0 F
14	2.9 F	3.2 F	3.5 F	3.9	4.0	3.8	3.7	6.2	8.5	8.4	8.0	9.0	8.8	8.6	9.2 JS	8.2	8.6	6.6	5.2	4.3	3.6	3.2	3.1	3.0
15	3.2	3.3 F	3.7 F	4.0	4.3	4.4	4.1	5.7	7.6	7.6	7.8	10.2	8.7	9.4	7.9	8.8	8.8	8.0	6.6	(5.0) FS	4.3	3.6	3.2 F	2.9 F
16	3.0 F	3.3 F	3.8 F	4.4	3.8 F	4.0 F	3.8 F	6.0	7.7	9.0	9.0	11.0	9.4	9.5	9.0	9.2	9.4	7.2 F	7.0	5.0	4.4	3.2 F	3.1	3.2 F
17	3.2	3.1	3.3	3.5 F	3.3	3.2 F	3.0	5.7	7.2	9.0	8.6	9.0	9.6	9.0	9.3	9.8	9.0	7.8	5.8	4.5	4.0	2.9 F	3.0	3.1
18	3.2	3.5	3.8	3.8 F	3.5	3.2	3.6	5.5	8.0	7.7	8.7	9.0	9.9	9.3	8.6	8.4	8.2	6.7	6.0	4.7	4.5	3.4 F	2.9 F	2.9 F
19	3.2	3.2 F	3.5	3.5 F	3.3 F	2.9 F	3.0	5.6	7.4	7.8	8.7	9.6	9.6	10.5	10.4	9.6	10.1	9.2	6.6	4.6	4.0	2.9 F	2.6 FS	2.8 F
20	3.8 F	(3.9) FS	4.5	4.0 F	4.2	3.7 F	3.7	5.1	7.2	7.9	9.0	10.0	9.7	9.0	9.0	8.8	7.6	7.0	6.6	4.7	3.5 F	3.4 F	(3.6) FS	3.4 F
21	2.7 F	2.7 F	3.5 F	3.6	(2.8) FS	(3.4) JF	(3.7) JS	(5.4) JS	7.4	(7.8) JS	9.2	10.3	10.6	9.6 M	8.8	8.8	7.8	6.4	6.6	5.0	4.2	3.2 F	2.9 F	2.9 F
22	2.6 F	3.6	4.0	3.6 F	(4.2) JS	4.6 F	4.3 F	5.2	7.1	(7.6) F	(7.2) F	8.6	10.2	8.2	(9.2) FS	(8.8) FS	7.4	(5.8) FS	5.3	(4.6) FS	3.6 F	2.7 F	(2.2) F	2.6 F
23	3.1	(3.3) FS	3.7 F	(3.6) F	(4.0) F	(3.7) F	4.4	5.8	6.9	7.4	7.3	8.4	8.5	8.0	7.8	8.2	7.2	6.6	4.8	4.6	4.0	3.1	2.5	2.6
24	2.8	2.8	3.0	3.4	4.0 JS	3.7 F	3.8 F	5.2	7.0	7.4 F	7.6	7.8	7.5	8.7	9.0	8.6	8.0	6.7	5.6	5.0	4.2	3.5 F	3.6 F	4.7 F
25	3.7	3.8 F	4.2 F	4.2 F	4.3 F	4.1 F	3.4 F	4.9	7.2	9.5	8.5	9.7	10.5	10.8	10.5	9.0	8.4	7.3	6.0	5.9	4.5 F	3.8	2.6 F	2.3
26	2.3	2.3	2.3 F	2.3 F	3.0 F	3.0	2.5 F	5.0	7.0	8.7	9.1	10.2	10.0	9.8	8.7	8.0	[8.2] S	8.8	8.3	6.6	4.8	4.3	3.6	3.4
27	3.1	3.8	4.5	5.1	(4.0) FS	3.0	2.8 F	4.8	8.5	8.8	9.0	9.8	(9.0) H	9.0	8.6	(7.8) S	7.6	7.4	6.8	(5.4) S	3.4	2.9 F	2.7	2.5
28	2.4	2.3	2.3	2.8	3.1	3.0	2.7	4.7	7.4	8.8	8.0	9.2	9.1	9.6	8.8	9.2	8.6	7.0	6.1	4.7	3.9	C	C	C
29	C	C	C	C	C	C	C	C	C	C	C	8.6	9.4	7.8	8.4	9.2	8.2	5.0	5.0	5.0	3.6	3.0	2.8	2.8
30	2.7 F	2.9	3.3	3.5	3.6 F	3.8	3.4 F	4.9	6.5	[7.9] C	9.6	8.8	10.5	8.6	9.0	8.9	7.4	5.5	5.7	4.2	3.0	2.7	2.5	2.4
31	2.4	2.7	3.1	3.2	4.2	3.0	2.6	4.2	6.8	8.0	8.5	9.4	9.0	9.5	9.1	(9.3) S	8.2	7.2	6.0	4.4	3.7	3.3	3.6	3.9
Median	3.2	3.3	3.5	3.7	3.8	3.5	3.6	5.7	7.8	8.6	9.0	9.7	9.9	9.6	9.2	9.0	8.6	7.2	6.1	4.8	4.0	3.4	3.2	3.1
Count	30	30	30	30	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836045

TABLE 56

Central Radio Propogation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

h'F1 (Characteristic), Km (Unit) December (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W 75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								Q	Q	210 H	230	210	220	220	220 H	240	Q							
2								Q	Q	230	220	210	240	230	240	Q	Q							
3								Q	Q	220	230	220	200	230	220	230	Q							
4								Q	Q	230	220	230	210	200	210	230	Q							
5								Q	Q	220	210	200	220	220	220	220	Q							
6								Q	Q	230	230	200	220	240	230	Q	Q							
7								Q	Q	230	230	210	220	200	200	210	Q							
8								Q	Q	Q	Q	220	210	210	210	220	Q							
9								Q	Q	Q	210 H	220	200	220	230	210	Q							
10									Q	Q	220	200	210	220	230	Q	Q							
11									Q	Q	220	220	A	A	A	A	A							
12									Q	Q	Q	220	220	210 H	220	210	Q							
13									Q	A	220	220	210	230	220	210	A							
14									Q	Q	220	220	[230] H	230	210	220	Q							
15									Q	Q	220	210	230	230	230	(230) A	Q							
16									Q	Q	Q	A	220	220	210	240	Q							
17									Q	Q	230	210	210	210	230	220	Q							
18									Q	Q	210	220	220 H	210	200	210	Q							
19									Q	220	220	210	210	220	220	210	Q							
20									Q	240	220	210	220	210	210	210	Q							
21									Q	210	210	230	210	220	200 H	200	Q							
22									Q	220	210	220	210 H	200	200	220	Q							
23									Q	230	220	210	210	220	200	230	Q							
24									Q	230	220	200	170 F	170 H	220	220	Q							
25									Q	240	210	200	240	250	240	210	Q							
26									Q	Q	220	210	220	220	220	A	Q							
27									Q	Q	210	200	200 H	220	210 H	Q	Q							
28									Q	230	[220] A	210	[220] A	[220] A	220	230	Q							
29									C	C	C	C	210 H	210	220	230	Q							
30									Q	230	[220] A	220	210	220	210	210	Q							
31									Q	210	230	230	220	230	220	230	Q							
Median										230	220	210	220	220	220	220								
Count										17	27	29	30	30	30	25								

Sweep 1.0 Mc to 25.0 Mc in 1.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 57

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

foF1 (Characteristic), Mc (Unit), December (Month), 1955

Observed at Washington, D.C.

Lat. 38.7°N, Long. 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.O., H.N., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								Q	Q	L	L	L	L	L	L	L	Q							
2								Q	Q	L	L	L	L	L	L	Q	Q							
3								Q	Q	L	L	L	L	L	L	L	Q							
4								Q	Q	L	L	L	L	L	L	L	Q							
5								Q	Q	L	L	L	L	L	L	L	Q							
6								Q	Q	L	L	L	L	L	L	Q	Q							
7								Q	Q	L	L	L	L	L	L	L	Q							
8								Q	Q	Q	Q	L	L	L	L	L	Q							
9								Q	Q	Q	L	L	L	L	L	L	Q							
10									Q	Q	L	L	L	L	L	Q	Q							
11									Q	Q	L	L	A	A	A	A	A							
12									Q	Q	Q	L	L	L	L	L	Q							
13									Q	A	L	L	L	L	L	L	A							
14									Q	Q	L	L	L	L	L	L	Q							
15									Q	Q	L	L	L	L	L	L	Q							
16									Q	Q	Q	A	L	L	L	L	Q							
17									Q	Q	L	L	L	L	L	L	Q							
18									Q	Q	L	L	L	L	L	L	Q							
19									Q	L	L	L	L	L	L	L	Q							
20									Q	L	L	L	L	L	L	L	Q							
21									Q	L	L	L	L	L	L	L	Q							
22									Q	L	L	L	L	L	L	L	Q							
23									Q	L	L	L	L	L	L	L	Q							
24									Q	L	L	L	4.1 F	L	L	L	Q							
25									Q	L	L	L	L	L	L	L	Q							
26									Q	Q	L	L	L	L	L	A	Q							
27									Q	Q	L	(4.2) L	L	L	L	Q	Q							
28									Q	L	L	L	L	L	L	L	Q							
29									C	C	C	C	L	L	L	L	Q							
30									Q	L	L	L	L	L	L	L	Q							
31									Q	L	L	L	L	L	L	L	Q							
Median										—	—	—	—	—	—	—								
Count										0	0	1	1	0	0	0								

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 816044

TABLE 58

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

h'E (Characteristic), Km (Unit), December (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								S	120	(110)A	(120)A	(110)A	(110)A	120	120	120	(130)S							
2								S	(130)SH	120	110	110	120	120	120	120	(130)S							
3								S	(120)S	120	110H	120	110H	120H	110H	120	(110)A							
4								S	120	120	(110)A	110H	110	110	(120)A	(120)B	(100)A							
5								S	A	110	110	100	120	120	120	(110)A	100							
6								S	A	110	[120]A	120	(120)A	(120)B	(120)A	(120)AH	A							
7								S	130	120	110	100	100	100	110H	110H	(120)A							
8								S	(100)A	(100)A	(100)A	(110)A	110	110	110	110H	120							
9								A	120	110	110	110	110	(110)A	110H	110H	110H							
10									A	100H	100H	100H	100H	100H	110A	(110)A	A							
11									120	110	100H	100	110	110	A	A	A							
12									130	110	110	110	110	110	110	110	(120)S							
13									A	A	(110)A	(110)A	A	A	110	110	100							
14									(130)S	110	110	110	100	100H	110	110	(110)S							
15									A	100H	100H	(110)A	(110)A	100H	(110)A	(100)A	(100)A							
16									110H	(110)A	110	[110]A	(110)A	(130)A	110H	110	120							
17									(130)S	(120)A	(120)A	(110)A	110	(120)A	[120]A	(110)A	A							
18									S	(120)A	A	A	(120)AH	(120)A	[120]A	(110)B	(130)A							
19									(130)A	110H	(110)A	100	(100)A	(100)A	100H	(120)A	A							
20									110H	110	(110)A	110	(120)A	(120)A	(120)A	(130)A	(130)A							
21									A	110H	110	110	110	110	110	110H	130							
22									A	110	120	110	(120)A	100H	110H	120	120							
23									A	120	100	100F	100F	100	A	A	A							
24									(130)SH	110	(110)A	110	110H	100H	(110)A	A	A							
25									S	110	[110]A	110	110	110	120	A	A							
26									(130)S	110H	110H	(110)B	(110)B	(110)BH	110	[120]A	120							
27									A	(110)A	110	(110)A	(110)B	(110)B	(120)BH	120	120							
28									A	(110)A	(110)A	(110)A	A	A	(120)A	(120)A	A							
29									C	C	C	C	(120)A	(120)A	A	A	A							
30									A	A	A	A	A	110	110	110	110							
31									A	(110)A	110H	(110)B	(110)B	(110)A	(110)A	(110)B	(120)SH							
Median								—	120	110	110	110	110	110	110	110	120							
Count								0	16	28	28	28	28	29	28	26	21							

Sweep 1.0 Mc to 25.0 Mc in 1.35 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 59

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

foE (Characteristic), Mc (Unit), December (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long. 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								< 1.6 S	2.0	[2.4] A	2.9	(3.1) A	(3.1) A	3.0	2.8	2.5	1.8							
2								< 1.6 S	2.0 H	[2.5] A	3.0	3.0	3.2	3.0	2.9	2.5	2.1							
3								< 1.6 S	(2.1) P	[2.5] A	2.9 H	3.1	3.1 H	3.1 H	2.9 H	2.6	A							
4								< 1.6 S	(2.1) F	A	A	3.1 H	3.2	3.1	3.0	2.6	A							
5								< 1.6 S	A	2.8	3.0	3.2	3.2	3.1	2.9	2.5	R							
6								< 1.6 S	A	(2.6) A	[2.8] A	3.1	3.2	3.1	2.9	2.5 H	A							
7								< 1.6 S	2.0	2.6	2.9	(3.1) A	[3.1] A	3.1	2.9 H	2.6 H	2.2							
8								< 1.6 S	A	A	A	3.1	3.2	[3.1] A	3.0	(2.6) A	1.9							
9								A	2.1	2.6	3.0	3.1	3.2	[3.1] A	3.0 H	2.6 H	2.0 H							
10									A	(2.6) S H	2.9 H	3.0 H	3.0 A H	3.1 H	3.0	A	A							
11									(2.0) P	2.6	2.9 H	3.2	3.2	A	A	A	A							
12									2.0	2.7	3.0	3.1	A	A	A	2.6	A							
13									A	A	2.9	3.1	3.1	[3.0] A	2.9	A	A							
14									1.8	2.6	(2.7) A	3.0	(3.1) A	3.1 H	A	A	A							
15									A	(2.4) H	2.8 H	3.0	3.1	3.0 H	2.8	A	A							
16									2.1 H	2.5	(2.8) A	[3.0] A	(3.1) A	3.1	2.9 H	2.6	1.8							
17									1.8	2.5	(2.7) A	3.0	3.1	3.1	[2.8] A	2.4	A							
18									< 1.6 S	2.5	A	A	3.1 H	3.1	3.0	(2.5) A	R							
19									1.9	2.5 H	(2.8) A	(2.9) A	A	A	(2.8) A	2.6	A							
20									1.9 H	(2.5) A	A	A	3.0	3.0	2.7	2.5	2.2							
21									A	2.4 H	2.7	2.9	(3.1) P	2.9	2.6	2.2 H	2.1							
22									A	2.4	2.7	2.9	3.0	(2.8) P	(2.7) H	2.6	2.0							
23									A	2.5	2.8	3.0 F	3.0 F	3.0	A	A	A							
24									1.7 H	A	A	A	3.0 H	(2.9) A	2.6	A	A							
25									< 1.6 S	2.4	[2.6] A	2.9	2.9	2.8	2.5	A	A							
26									1.7	2.3 H	2.7 H	2.9	(3.0) A	3.0 H	(2.8) A	A	R							
27									A	(2.4) A	2.8	(2.9) A	(3.0) R	3.0	2.9 H	(2.6) A	A							
28									A	A	A	A	A	A	2.9	2.4	A							
29									C	C	C	C	3.1	(3.0) A	A	A	A							
30									A	A	A	A	A	3.2	2.9	2.5	2.4							
31									A	2.4	(2.7) H	A	A	3.1	(3.0) P	[2.5] A	(2.1) H							
Median								< 1.6	2.0	2.5	2.8	3.0	3.1	3.1	2.9	2.5	2.1							
Count								8	17	24	23	24	26	27	26	21	11							

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 60

Central Radio Propogation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

Es (Characteristic), Mc, Km (Unit) December (Month), 1955

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Scaled by: K.B., F.M., L.M., R.M.

Lot 38.7°N, Long 77.1°W 75°W Meon Time

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.8 110	<1.7 S	<1.6 S	<1.3 S	#8 110	2.9 110	<1.6 S	3.9 110	1.7 120	3.1 110	2.6 120	3.7 110	#2y 110	2.2 110	G	G	G	<1.6 S	3.5 110	<1.6 S	<1.6 S	<1.7 S	<1.6 S	<1.6 S
2	<1.8 S	<1.6 S	<1.4 S	<1.4 S	<1.3 S	<1.6 S	<1.6 S	G	G	2.8 120	G	G	G	G	0	G	G	<1.6 S	<1.6 S	<1.6 S	<2.5 S	<1.8 S	<1.7 S	<1.6 S
3	<1.8 S	<1.6 S	<1.6 S	<1.3 S	<1.7 S	<1.6 S	<1.6 S	G	G	2.7 130	G	G	G	G	G	G	3.0 110	#0 110	3.6 100	<1.9 S	<1.9 S	<1.6 S	2.6y 110	<1.6 S
4	2.8y 110	2.9y 110	<1.7 S	<1.6 S	<1.6 S	<1.9 S	<1.6 S	G	G	2.7 120	3.8 110	3.0 110	G	G	2.9 100	G	3.1 100	2.5 100	1.9 100	<2.2 S	<1.6 S	<1.7 S	<1.6 S	<1.6 S
5	<1.6 S	2.9y 100	1.8 100	3.8 100	<1.7 S	<1.6 S	2.2 110	G	2.7y 100	G	G	G	2.0 100	2.1 100	2.7y 100	1.9 100	G	2.3y S (120)	2.9 110	<1.6 S	<1.9 S	<1.6 S	<1.6 S	2.8 110
6	<1.6 S	<1.6 S	<1.3 S	<1.3 S	<1.5 S	<1.6 S	2.2 110	G	(3.8) S 120	2.7 130	3.4 120	G	2.6 110	G	2.0 100	2.0 100	3.8 100	1.7 100	<1.6 S	<1.6 S	<1.9 S	<1.6 S	<1.6 S	<1.6 S
7	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.1 100	G	G	1.9 110	3.6 H 130	#4 120	3.2 130	G	G	G	1.8 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
8	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	#3y 110	2.2 100	2.3F 100	3.6y 100	3.1 100	2.9 100	G	3.2 110	G	3.1 F 120	G	3.0 100	2.8y 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
9	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.5 S	<1.6 S	<1.6 S	#6y 100	#5y 100	3.1 130	G	3.2 120	G	#8 110	3.3 110	G	2.5 120	3.0 110	#7 100	3.8 100	3.8 100	<1.6 S	<1.6 S	<1.6 S
10	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.3 S	2.1 110	<1.4 S	3.7 110	#3 100	6.6 120	3.1 110	G	#5 N 110	#3 130	#5 120	#6 110	#7 90	#7 90	3.5F 100	<1.6 S	<1.5 S	<1.5 S	2.8 100	<1.6 S
11	<1.6 S	<1.6 S	3.0y 100	3.0 100	3.7 100	5.6 100	#5 100	3.0 100	G	G	G	3.5 120	5.6 110	7.5 100	8.8 100	#9 100	6.0 100	8.8 N 100	5.4 F 110	3.5 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S
12	<1.6 S	<1.6 S	<1.6 S	<1.6 S	E	<1.5 S	#2y N 90	<1.6 S	2.4 140	G	3.3 130	3.8 120	3.2 110	3.3 110	3.1 110	G	2.2 130	<1.6 S	5.0 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
13	<1.6 S	<1.6 S	<1.3 S	<1.3 S	<1.6 S	<1.6 S	<1.6 S	3.0y 100	3.4 100	#6 100	2.7 100	#6 100	5.1 100	5.4 90	2.0 100	3.4 120	#0 110	3.0y N 100	2.3 100	3.4 H 110H	<1.6 S	<1.6 S	<1.6 S	<1.6 S
14	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.2 140	G	3.0 110	3.4 130	#6 N 110	#.5 N 120	#4 N 100	#9 N 120	3.0y N 110	<1.6 S	(3.5) S 120	2.9y 100	<1.6 S	3.1 H 110	<1.6 S	<1.6 S
15	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	3.3y H 100	G	3.0 140	#4 H 100	#3 N 100	#8 N 110	#2 N 100	#1 N 100	#2 110	#7 100	7.0 100	<1.6 S	(2.8) S 100	<1.6 S	<1.6 S	<1.6 S
16	<1.6 S	#4 110	<1.6 S	<1.3 S	6.9y 110	#3 H 110	(2.9) S 110	<1.6 S	G	#.5 110	#3 120	3.0 100	6.3 N 110	3.6 100	5.0 100	G	#.5 130	<1.6 S	<1.5 S	<1.5 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
17	<1.6 S	5.0 100	<1.6 S	3.2 120	<1.6 S	2.9 110	3.6 110	(3.0) S 110	2.0 100	2.9 100	3.3 100	3.4 100	3.3 130	#8 90	3.2 100 H	1.9 100	3.4F H 100	#9 100	#.3 130	#.5 110	3.6 100	2.1 110	#8 100	3.0 100
18	3.0 110	<1.6 S	<1.6 S	<1.3 S	<1.6 S	1.7 150	#.7 100	5.0 100	1.7 100	#8 100 H	3.7 100	#7 H 100	2.6 100	3.4 100	#.7 90	2.4 110	1.9 110	1.8 110	<1.5 S	3.6 100	3.1 100	2.5 100	3.0 100	2.2 100
19	3.0 100	<1.6 S	2.8y 100	3.0y 100	<1.2 S	<1.6 S	(3.4) S 110	3.7 110	2.0 110	3.1 140	3.6 110	5.4 120	#5 120	3.1 H 120	3.1 120	3.0 100	#.5 100	2.9 100	1.8 100	3.0 100	<1.6 S	<1.6 S	2.8 110	<1.6 S
20	<1.6 S	2.1 110	<1.6 S	3.0 120	<1.3 S	2.2 100	3.4 110	<1.6 S	G	2.7 120	3.1 110	3.2 100	3.0 110	2.5 110	2.6 110	2.2 110	1.8 110	3.3 120 N	<1.6 S	3.0 100	3.0 100	<1.6 S	<1.6 S	2.3 100
21	<1.6 S	4.3 110	#.6F 110	3.8F 110	2.2 110	2.2 110	<1.6 S	<1.6 S	2.9 110	G	G	G	G	G	G	G	G	2.3 150	3.4 120	<1.6 S	<1.6 S	<1.5 S	<1.6 S	<1.6 S
22	<1.6 S	5.2 100	2.2 110	<1.3 S	<1.3 S	3.1y 100	<1.6 S	<1.6 S	2.0 110	G	G	G	2.5 110	G	G	2.7 130	#.6 100	<1.6 S	#7y 100	3.7 110	#.2 100	2.9 100	2.7 100	<1.6 S
23	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.2 100	<1.6 S	<1.6 S	2.8 110	2.0 110	3.8 H 110	G	3.7F 90	G	G	#.5 H 100	3.5 H 100	3.7 N 100	<1.6 S	3.0 100	2.8 100	3.2 100	2.4 100	<1.6 S	<1.6 S
24	2.9 100	3.0 110	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.0 140	3.4 110	3.7 110	#8 110	5.5 100	3.5 110	2.0 100	3.1 130	3.0 120	<1.6 S	<1.6 S	<1.6 S	<1.7 S	<1.6 S	2.3 110	2.3 150
25	2.3 140	<1.6 S	<1.6 S	2.4 110	6.2 100	3.7 100	3.7 110 H	#3 100	G	2.6 110	3.0 110	3.5 100	3.2 110	3.1 100	2.9 120	2.7 128	2.1 H 110	1.9 110	3.3y 110	2.2 110	<1.6 S	2.9y 100	<1.6 S	<1.6 S
26	<1.5 S	<1.6 S	<1.2 S	#4F 110	#.3 100	3.6 130	<1.6 S	<1.6 S	1.9 100	G	G	3.3 120	3.3 130	3.2 120	3.4 120	3.2 110	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	3.1 130
27	<1.6 S	<1.5 S	<1.6 S	<1.6 S	<1.1 S	<1.6 S	<1.6 S	<1.6 S	2.1 130	2.6 130	3.0 120	#5 110	G	G	3.2 120	2.6 130	3.3 120	<1.5 S	<1.6 S	<1.7 S	<1.5 S	<1.6 S	<1.6 S	<1.6 S
28	3.5 120	2.6y 120	2.7y 120	#6 N 110	3.6 N 110	<1.6 S	<1.6 S	3.0 120	#.2 N 110	5.2 110	7.6 100	7.0 100	7.4 100	#9 100	2.8 110	3.2 100	#3 100	#6 100	#.4 100	<1.6 S	2.7 100	C	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	#6 100	#4 100	#.4 90	3.5 90	#6 90	3.0 90	3.0 90	<1.6 S	3.6 120	3.1 110	<1.6 S	3.1 110
30	2.3 100	<1.6 S	<1.6 S	<1.6 S	#.1 110	<1.6 S	<1.6 S	<1.6 S	3.0 110	3.0 110	3.0 110	#9 110	3.7 110	G	G	G	G	1.9 100	3.5 100	#.2 100	3.5 100	3.7 100	3.0 100	<1.6 S
31	<1.6 S	<1.6 S	<1.6 S	#7 110	#.3 110	#.8 100	#8y 100	#.4 110	3.6 110	2.6y 120	G	3.3 120	3.1 120	2.2y 100	3.1y 100	3.0 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.8y 110	2.7y #0	1.7 120
Median	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	2.0	2.7	3.0	3.4	3.2	3.1	2.9	2.6	3.0	1.9	3.0	<1.6	<1.6	<1.6	<1.6	<1.6
Count	30	30	30	30	30	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	30	30	30

Sweep 1.0 Mc to 25.0 Mc In 13.5 sec.

Monuol ☐ Automatic ☒

GPO 836048

TABLE 61

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M1500) F2 (Characteristic), ____ (Unit), December (Month), 1955

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Lat 38.7°N, Lang 77.1°W

75°W Mean Time

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.P., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.0	1.9	1.9	2.0	2.1	2.0	1.9	2.1	2.4	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.3$^{J}_{S}$	2.3	F^{J}	1.8$^{F}_{D}$	(1.9)^{F}	1.9$^{J}_{F}$
2	(2.1)$^{D}_{F}$	2.0^{F}	(1.9)^{F}	1.9^{F}	2.0$^{E}_{S}$	(2.1)^{F}	F	(2.3)$^{E}_{S}$	2.4	2.2	2.2^{H}	2.3	2.2	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.2	2.1	2.0	1.9
3	2.1	2.0^{F}	2.0	2.1^{F}	2.1^{F}	2.0^{F}	2.0^{F}	2.3^{F}	2.4	2.4	2.2	2.3	2.1	2.2	2.1	2.2	2.1	2.2	2.1	2.1	(2.2)$^{F}_{S}$	2.2^{F}	(2.0)$^{E}_{S}$	1.9
4	(1.9)$^{E}_{S}$	2.0	2.1	2.2	2.0	2.0	2.0	2.2	2.3	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.1	(2.1)$^{E}_{S}$	2.1	2.1	2.1	1.9
5	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.0	2.1	2.0	1.9	1.9^{F}	1.9
6	(2.0)$^{E}_{S}$	(1.9)$^{E}_{S}$	(1.8)$^{E}_{S}$	(1.8)$^{E}_{S}$	(1.9)$^{E}_{S}$	2.0^{F}	2.1	2.1	2.2	2.2	2.2	2.3	2.1^{H}	2.2	2.2	2.1	2.3	2.1	2.2	2.2	2.1	2.1^{F}	1.9^{F}	2.0
7	1.9^{F}	1.8^{E}	1.9^{F}	J^{F}	(2.6)$^{E}_{S}$	(2.3)$^{E}_{S}$	2.0^{F}	(2.2)$^{D}_{S}$	2.4	(2.4)$^{D}_{S}$	2.4	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1^{F}	1.9^{F}
8	2.0^{F}	1.9^{F}	2.0^{F}	2.1	2.1^{F}	2.0^{F}	2.1	2.2	2.4	2.4	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	(2.3)$^{E}_{S}$	2.0^{F}	2.1^{F}	1.9^{F}
9	2.0^{F}	2.0^{F}	2.0	1.9	1.9^{F}	1.9^{F}	(2.1)$^{E}_{S}$	2.3^{F}	2.4	2.3	2.1^{H}	2.0	2.1	2.2	2.1	2.2$^{J}_{S}$	2.2	2.0	2.1	2.2	2.2	2.2	2.2	2.1^{F}
10	2.0^{F}	1.9^{F}	2.0^{F}	2.1^{F}	2.2^{E}	2.2^{F}	2.1^{F}	2.2	2.4	2.4	2.3	2.3	2.2	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.3	2.2^{F}	2.0^{F}	2.0^{F}
11	2.0^{F}	2.0^{F}	1.9^{F}	1.9^{F}	2.0^{E}	2.1^{F}	2.1^{F}	2.0	2.5	2.4	2.3	2.3	2.3	2.1	2.2	2.2	2.3	2.3	2.1	(2.2)$^{E}_{S}$	2.1	2.1	2.0^{F}	2.3
12	2.2	1.9^{F}	(2.0)$^{E}_{S}$	2.0^{F}	(2.0)^{E}	2.1^{F}	2.0	2.2	2.4	2.4	2.6	2.3	2.1	2.2	2.2	2.2	2.3	2.2	2.1	2.2	2.4	2.1	2.1^{F}	2.1^{F}
13	2.1^{F}	2.0^{F}	2.0^{F}	2.0^{F}	2.0^{F}	2.2^{F}	2.2^{F}	2.4^{F}	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.3	2.4	2.2	2.3	2.1^{F}	2.3^{F}	2.1^{F}	(1.9)^{F}
14	2.1	2.0^{F}	2.1^{F}	2.1^{F}	2.1	2.1	2.2^{F}	2.2	2.5	2.4	2.5	2.4	2.4	(2.2)$^{D}_{F}$	2.3	2.3	2.3	2.4	2.2	2.2	2.2	2.2	2.0	1.9
15	2.0	2.0^{F}	2.0^{F}	2.0^{F}	2.0	2.1	2.0^{F}	2.2	2.4	2.1	2.5	2.3	2.4	2.2	2.3	2.3	(2.3)$^{D}_{S}$	2.2	2.3	(2.3)$^{D}_{S}$	2.2	(2.2)$^{E}_{S}$	2.1^{F}	2.0^{F}
16	1.8^{F}	2.0^{F}	2.0^{F}	2.0^{F}	2.1	2.0^{F}	2.1	2.2^{F}	2.5	2.4	2.2^{H}	2.2	2.3	2.3	2.2	(2.3)$^{S}_{D}$	2.2	2.3	2.1	2.2	2.3	2.2^{F}	2.0	2.2^{F}
17	2.0^{F}	2.0	1.9	2.0	2.0	2.1^{F}	2.2	2.2	2.4	2.4	2.3	2.3	2.2	(2.1)$^{F}_{H}$	2.3	2.2	2.3	2.3	2.2	2.2	2.3^{F}	2.4^{F}	2.1	2.0^{F}
18	2.0	2.0	1.9	2.2	2.1^{F}	2.0^{F}	2.1^{F}	2.2	2.5	2.3^{V}	2.2^{H}	2.4	2.3^{H}	2.4	2.5	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.1^{F}	2.0
19	2.0^{F}	(2.0)^{F}	2.0^{F}	2.1^{F}	2.1^{F}	2.1^{F}	(2.0)$^{E}_{S}$	2.1^{F}	2.5	2.3	2.3	2.1	2.2	2.2	2.1	2.2	(2.2)$^{D}_{S}$	2.2	2.2	2.3	2.2	2.2	(2.3)$^{E}_{S}$	2.0^{F}
20	1.9^{F}	2.0^{F}	1.9	2.2	2.2^{F}	2.2^{F}	2.0^{F}	2.1^{F}	2.4	2.3	2.3	2.2	2.1	2.1	2.2	2.2	2.3	2.2	2.3	2.3	2.5	2.2^{F}	2.1^{F}	(2.0)$^{E}_{S}$
21	2.0^{F}	1.9^{F}	2.0^{F}	2.0^{F}	2.1^{F}	(2.0)^{F}	J^{S}	J^{S}	2.3	2.4	2.0	2.3	2.3	2.2	2.3	2.4	2.2	(2.3)$^{E}_{S}$	2.1$^{J}_{S}$	2.3	2.2	(2.2)$^{E}_{S}$	2.1^{F}	2.2^{F}
22	2.1^{F}	1.8^{F}	1.9	1.9^{F}	2.1	2.0	2.1^{F}	2.2	2.3	2.3	2.3	2.5	2.3	2.3	2.2	2.2	2.4	2.4	2.2	2.4	2.4	2.3^{F}	2.3	2.0^{F}
23	1.9	1.9^{F}	1.9^{F}	(2.0)^{F}	(2.0)^{F}	(2.0)^{F}	(2.0)^{F}	2.2^{F}	2.5	2.3	2.3^{B}	2.4	2.4	2.3	2.4	2.3	(2.3)$^{J}_{F}$	2.3	2.3	2.2	2.3	2.3	2.1	2.1^{F}
24	2.1^{F}	2.1	2.0	2.0	J^{S}	J^{S}	2.2^{F}	2.3^{F}	2.4	2.6	2.5^{F}	2.6	2.3	2.4	2.2	2.3	2.3	2.3	2.2	2.3	2.2	2.2	2.0^{F}	2.1^{F}
25	2.2^{F}	1.9^{F}	1.9^{F}	2.0^{F}	2.0^{F}	1.9^{F}	2.3^{F}	2.3	2.3	2.3	2.3	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.2^{F}	2.4^{F}	2.0
26	2.0	2.0	2.0	2.0^{F}	2.0	2.2	2.3	2.2^{F}	2.4	2.3	2.3	2.3	2.2	2.2	(2.3)^{S}	2.3	2.2	2.2	2.1	2.4	(2.4)$^{D}_{S}$	2.1	2.1^{F}	(2.2)^{F}
27	1.9	1.8	1.8	2.0	2.3	2.2^{F}	2.1	(2.2)$^{F}_{S}$	2.3	2.3^{H}	2.4	2.4	(2.4)$^{J}_{H}$	(2.2)^{H}	2.3	2.3	(2.2)^{S}	(2.2)^{S}	2.3	2.3	2.3	2.0^{F}	2.0^{F}	2.0
28	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	C	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	2.3	2.4	2.3	2.2	2.4	2.4	2.2	2.2	2.2	2.3^{F}	2.0	1.9
30	1.9	1.9^{F}	2.1	2.1	2.1	2.1	2.1	2.0	2.4	2.4	2.4	2.2	(2.2)$^{D}_{H}$	2.2	2.3	2.3	2.3	2.5	2.3	2.4	2.3^{F}	2.0	2.0	2.0
31	1.9	2.3^{F}	1.9	2.1	2.2	2.7^{F}	2.0	2.2	2.4	2.3	2.5	2.1	2.3	2.1	2.1	2.3	2.3	(2.3)^{S}	2.2	2.2	2.0	1.9	1.9	1.9
Median	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.0
Count	30	30	30	29	29	29	28	29	30	30	30	30	31	31	31	31	31	31	31	31	30	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 62

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M3000) F2 (Characteristic) ____ (Unit) December (Month), 1955

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Scaled by: K.B., F.M., L.M., R.M.

Lat. 38.7°N, Long. 77.1°W 75°W Mean Time

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.0	2.9	2.8	2.9	3.1	3.0	2.9	3.1	3.5	3.5	3.4	3.2	3.1	3.1	3.0	3.0	3.1	3.2	3.3 J S	3.3	F J	2.7 F B	(2.9) F	2.9 J F
2	(3.1) P F	3.0 F	(2.8) F	2.9 F	3.0 F S	(3.1) F	F	(3.3) F S	3.5	3.3	3.2 H	3.3	3.2	3.1	3.2	3.2	3.2	3.4	3.2	3.2	3.2	3.1	3.0	2.9
3	3.1	3.0 F	3.0	3.1 F	3.1 F	3.0 F	3.0 F	3.3 F	3.5	3.5	3.3	3.4	3.1	3.2	3.2	3.2	3.2	3.2	3.1	3.1	(3.2) F	3.3 F	(3.0) F S	2.9
4	(2.9) F S	3.0	3.1	3.2	3.0	3.0	3.0	3.2	3.3	3.5	3.3	3.3	3.3	3.2	3.2	3.3	3.2	3.4	3.1	(3.1) F S	3.1	3.2	3.1	2.9
5	2.9	2.9	3.0	3.0	3.1	3.0	3.0	3.2	3.4	3.3	3.4	3.4	3.2	3.2	3.3	3.2	3.2	3.2	3.0	3.1	3.0	2.9	2.9 F	2.9
6	(3.0) F S	(2.9) F S	(2.8) F S	(2.8) F S	(2.9) F S	3.0 F	3.1	3.1	3.3	3.3	3.3	3.4	3.1 H	3.2	3.2	3.2	3.3	3.1	3.3	3.3	3.2	3.1 F	2.9 F	3.0
7	2.8 F	2.7 F	2.8 F	J F	(3.2) F S	(3.3) F S	3.0 F	(3.2) P S	3.5	(3.5) P S	3.5	3.3	3.3	3.2	3.3	3.3	3.4	3.3	3.2	3.2	3.1	3.1	3.1 F	2.9 F
8	3.0 F	2.9 F	3.0 F	3.1	3.1 F	3.0 F	3.1	3.3	3.5	3.5	3.2 H	3.4	3.2	3.3	3.2	3.3	3.2	3.3	3.3	3.3	(3.3) F S	3.0 F	3.1 F	2.9 F
9	3.0 F	3.0 F	3.0	2.9	2.8 F	2.8 F	(3.1) F S	3.3 F	3.5	3.3	3.1 H	3.0	3.1	3.2	3.1	3.2 J S	3.2	3.0	3.1	3.2	3.2	3.3	3.2	3.1 F
10	3.0 F	2.9 F	3.0 F	3.1 F	3.2 F	3.2 F	3.1 F	3.2	3.5	3.4	3.3	3.3	3.3	3.1	3.2	3.1	3.2	3.2	3.2	3.3	3.4	3.2 F	3.0 F	3.0 F
11	3.0 F	3.0 F	2.9 F	2.9 F	3.0 F	3.1 F	3.1 F	3.0	3.5	3.5	3.4	3.4	3.3	3.1	3.2	3.3	3.3	3.4	3.1	(3.2) F S	3.1	3.1	3.0 F	3.4
12	3.3	2.9 F	(3.1) F S	3.0 F	(3.0) F	3.2 F	3.0	3.3	3.5	3.5	3.7	3.4	3.1	3.3	3.2	3.3	3.4	3.2	3.2	3.2	3.5	3.1	3.1 F	3.2 F
13	3.1 F	3.0 F	3.0 F	3.0 F	3.0 F	3.2 F	3.2 F	3.5 F	3.5	3.4	3.5	3.4	3.4	3.4	3.4	3.3	3.3	3.5	3.3	3.4	3.2 F	3.3 F	3.1 F	(2.9) F
14	3.1	3.0 F	3.1 F	3.1 F	3.1	3.1	3.2 F	3.3	3.6	3.5	3.6	3.5	3.5	(3.3) P F	3.4	3.4	3.4	3.5	3.3	3.3	3.2	3.2	3.0	2.9
15	3.0	3.0 F	3.0 F	3.0 F	3.0	3.1	3.0 F	3.3	3.5	3.2	3.6	3.4	3.5	3.3	3.4	3.4	(3.4) P S	3.2	3.3	(3.4) P S	3.3	(3.2) F S	3.2 F	3.0 F
16	2.8 F	3.0 F	3.0 F	3.0 F	3.1	3.0 F	3.2	3.3 F	3.6	3.5	3.2 H	3.2	3.3	3.3	3.3	(3.3) S P	3.3	3.3	3.1	3.2	3.3	3.3 F	3.0	3.2 F
17	3.0 F	3.0	2.9	3.0	3.0	3.1 F	3.2	3.2	3.5	3.5	3.4	3.3	3.2	(3.1) F H	3.3	3.2	3.4	3.3	3.2	3.2	3.3 F	3.4 F	3.1	3.0 F
18	3.0	3.0	2.9	3.2	3.1 F	3.0 F	3.1 F	3.2	3.6	3.4 V	3.2 H	3.5	3.4 H	3.5	3.6	3.4	3.3	3.4	3.3	3.4	3.3	3.4	3.1 F	3.0
19	3.0 F	(3.0) F	3.0 F	3.1 F	3.1 F	3.1 F	(3.0) F S	3.1 F	3.6	3.4	3.3	3.1	3.2	3.2	3.1	3.2	(3.2) P S	3.2	3.2	3.3	3.2	3.2	(3.4) F S	3.0 F
20	2.9 F	3.0 F	2.9	3.2	3.2 F	3.2 F	3.0 F	3.1 F	3.4	3.3	3.3	3.2	3.1	3.1	3.2	3.2	3.3	3.2	3.3	3.4	3.5	3.2 F	3.1 F	(3.0) F S
21	3.0 F	2.9 F	3.0 F	3.0 F	3.1	(3.0) F	J S	J S	3.3	3.5	3.0	3.3	3.3	3.2	3.3	3.5	3.3	(3.3) F S	3.1 J S	3.3	3.2	(3.3) F S	3.1 F	3.2 F
22	3.1 F	2.8 F	2.9	2.9 F	3.1	3.0	3.1 F	3.3	3.4	3.4	3.3	3.6	3.4	3.3	3.3	3.3	3.5	3.4	3.3	3.5	3.5	3.3 F	3.4	3.0 F
23	2.8	2.9 F	2.9 F	(3.0) F	(3.0) F	(3.0) F	(3.0) F	3.3 F	3.6	3.4	3.3 B	3.5	3.4	3.3	3.4	3.3	(3.4) J F	3.3	3.4	3.2	3.3	3.3	3.1	3.1 F
24	3.1 F	3.1	3.0	3.0	J S	J S	3.2 F	3.4 F	3.5	3.7	3.6 F	3.7	3.4	3.5	3.2	3.3	3.3	3.3	3.2	3.3	3.2	3.2	3.0 F	3.1 F
25	3.2 F	2.9 F	2.9 F	3.0 F	3.0 F	2.9 F	3.4 F	3.3	3.3	3.4	3.3	3.1	3.3	3.2	3.2	3.3	3.3	3.3	3.2	3.3	3.3	3.2 F	3.4 F	3.0
26	3.0	3.0	3.0	3.0 F	3.0	3.2	3.3	3.3 F	3.5	3.3	3.4	3.3	3.3	3.3	(3.3) S	3.4	3.2	3.2	3.1	3.4	(3.5) P S	3.1	3.1 F	(3.3) F
27	2.8	2.7	2.7	3.0	3.4	3.3 F	3.1	(3.2) F S	3.3	3.3 H	3.5	3.5	(3.5) J H	(3.2) H	3.3	3.4	(3.2) S	(3.2) S	3.3	3.4	3.4	3.0 F	3.0 F	3.0
28	3.0	2.9	3.0	3.0	3.0	3.1	3.1	3.2	3.3	3.5	3.5	3.4	3.2	3.2	3.3	3.3	3.3	3.4	3.2	3.3	3.3	C	C	C
29	C	C	C	C	C	C	C	C	C	C	C	C	3.4	3.5	3.3	3.3	3.4	3.4	3.2	3.3	3.3	3.4 F	3.0	2.9
30	2.8	2.8 F	3.1	3.1	3.1	3.1	3.1	3.0	3.5	3.4	3.4	3.2	(3.2) P H	3.2	3.3	3.4	3.4	3.5	3.3	3.4	3.3 F	2.9	3.1	3.0
31	2.9	3.4 F	2.9	3.2	3.3	3.6 F	3.1	3.3	3.5	3.3	3.6	3.1	3.3	3.1	3.1	3.4	3.4	(3.3) S	3.2	3.2	3.0	2.9	2.8	2.9
Median	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.3	3.5	3.4	3.35	3.35	3.3	3.2	3.3	3.3	3.3	3.3	3.2	3.3	3.3	3.2	3.1	3.0
Count	30	30	30	29	29	29	28	29	30	30	30	30	31	31	31	31	31	31	31	31	30	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

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GPO 836048

TABLE 63

Central Radio Propogation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M3000) F1 (Characteristic), ____ (Unit), December (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1								Q	Q	L	L	L	L	L	L	L	Q									
2								Q	Q	L	L	L	L	L	L	Q	Q									
3								Q	Q	L	L	L	L	L	L	L	Q									
4								Q	Q	L	L	L	L	L	L	L	Q									
5								Q	Q	L	L	L	L	L	L	L	Q									
6								Q	Q	L	L	L	L	L	L	Q	Q									
7								Q	Q	L	L	L	L	L	L	L	Q									
8								Q	Q	Q	Q	L	L	L	L	L	Q									
9								Q	Q	Q	L	L	L	L	L	L	Q									
10									Q	Q	L	L	L	L	L	L	Q									
11									Q	Q	L	L	A	A	A	A	A									
12									Q	Q	Q	L	L	L	L	L	Q									
13									Q	A	L	L	L	L	L	L	A									
14									Q	Q	L	L	L	L	L	L	Q									
15									Q	Q	L	L	L	L	L	L	Q									
16									Q	Q	Q	A	L	L	L	L	Q									
17									Q	Q	L	L	L	L	L	L	Q									
18									Q	Q	L	L	L	L	L	L	Q									
19									Q	L	L	L	L	L	L	L	Q									
20									Q	L	L	L	L	L	L	L	Q									
21									Q	L	L	L	L	L	L	L	Q									
22									Q	L	L	L	L	L	L	L	Q									
23									Q	L	L	L	L	L	L	L	Q									
24									Q	L	L	L	4.0F	L	L	L	Q									
25									Q	L	L	L	L	L	L	L	Q									
26									Q	Q	L	L	L	L	L	A	Q									
27									Q	Q	L	(3.9)1	L	L	L	Q	Q									
28									Q	L	A	L	L	L	L	L	Q									
29									C	C	C	C	L	L	L	L	Q									
30									Q	L	L	L	L	L	L	L	Q									
31									Q	L	L	L	L	L	L	L	Q									
Median										—	—	—	—	—	—	—										
Count										0	0	1	1	0	0	0										

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

Form adopted June 1946

TABLE 64

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

IONOSPHERIC DATA

(M 1500) E (Characteristic), ____ (Unit), December (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: K.B., F.M., L.M., R.M.

Calculated by: J.P., J.S., J.W., E.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								S	4.2	A	4.4	(4.1)A	(4.2)A	4.3	4.3	4.4	4.3							
2								S	4.2H	A	4.2	4.3	4.2	4.3	4.3	4.3	4.0							
3								S	(4.3)P	A	4.4H	4.3	4.4H	4.5H	4.3H	4.4	A							
4								S	(4.3)F	A	A	4.4H	4.3	4.4	4.3	4.4	A							
5								S	A	4.2	4.3	4.3	4.3	4.3	4.3	4.4	R							
6								S	A	(4.3)A	A	4.3	4.3	4.4	4.3	4.3H	A							
7								S	4.3	4.3	4.4	(4.3)A	A	4.4	4.4H	4.4H	4.0							
8								S	A	A	A	4.4	4.3	A	4.3	(4.2)A	4.4							
9								A	4.4	4.4	4.3	4.4	4.4	A	4.3H	4.4H	4.3H							
10									A	(4.4)S	4.3H	4.4H	A	4.4H	4.3	A	A							
11									(4.4)P	4.4	4.4H	4.3	4.4	A	A	A	A							
12									4.2	4.3	4.4	4.4	A	A	A	4.4	A							
13									A	A	4.2	4.3	4.3	A	4.5	A	A							
14									4.3	4.3	(4.4)A	4.4	(4.4)A	4.4H	A	A	A							
15									A	(4.3)H	4.4H	4.3	4.3	4.4H	4.4	A	A							
16									4.1H	4.3	(4.5)A	A	(4.3)A	4.3	4.4H	4.4	4.3							
17									4.2	4.3	(4.4)A	4.4	4.4	4.4	A	4.5	A							
18									S	4.3	A	A	4.2H	4.3	4.3	(4.5)A	R							
19									4.2	4.3H	(4.3)A	(4.4)A	A	A	(4.4)A	4.4	A							
20									4.3H	(4.3)A	A	A	4.3	4.4	4.3	4.3	4.2							
21									A	4.3H	4.4	4.4	(4.5)P	4.4	4.5	4.4H	4.4							
22									A	4.4	4.4	4.4	4.4	(4.4)P	(4.4)H	4.3	4.4							
23									A	4.3	4.4	4.4F	4.3F	4.4	A	A	A							
24									SH	A	A	A	4.4H	(4.4)A	4.4	A	A							
25									S	4.2	A	4.2	4.2	4.4	4.3	A	A							
26									4.3	4.2H	4.2H	4.4	(4.3)A	4.3H	(4.3)A	A	R							
27									A	(4.3)A	4.4	(4.3)A	(4.3)R	4.2	4.3H	(4.3)A	A							
28									A	A	A	A	A	A	4.3	4.3	A							
29									C	C	C	C	4.3	(4.3)A	A	A	A							
30									A	A	A	A	A	4.4	4.4	4.4	4.3							
31									A	4.4	(4.3)H	A	A	4.3	(4.3)P	A	(4.3)H							
Median								—	4.3	4.3	4.4	4.4	4.3	4.4	4.3	4.4	4.3							
Count								0	14	21	21	23	24	24	25	20	11							

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

GRAPHS OF IONOSPHERIC DATA

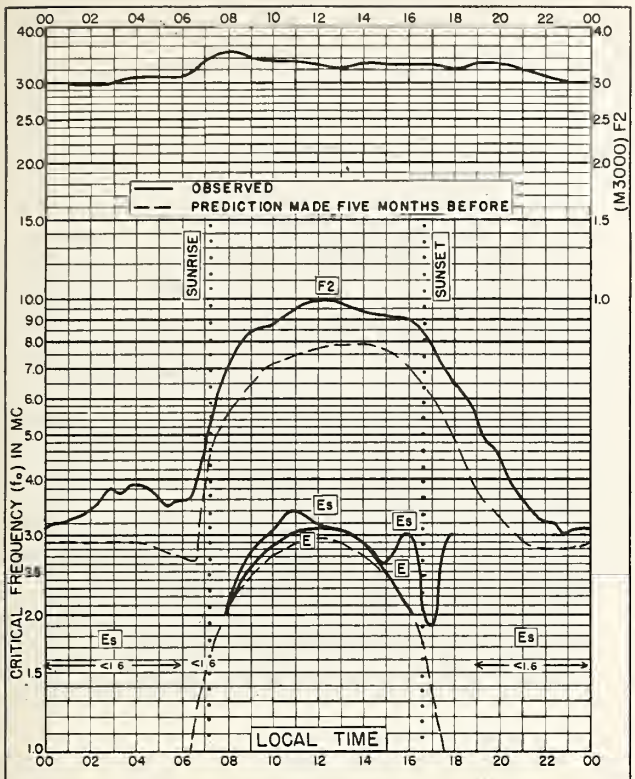

Fig. 1. WASHINGTON, D.C.
38.7°N, 77.1°W DECEMBER 1955

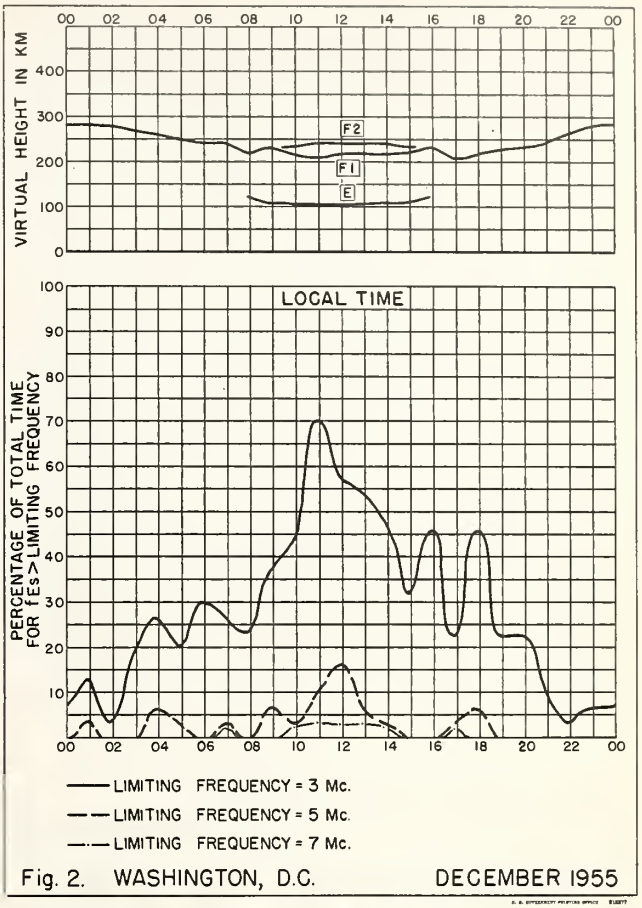

Fig. 2. WASHINGTON, D.C. DECEMBER 1955

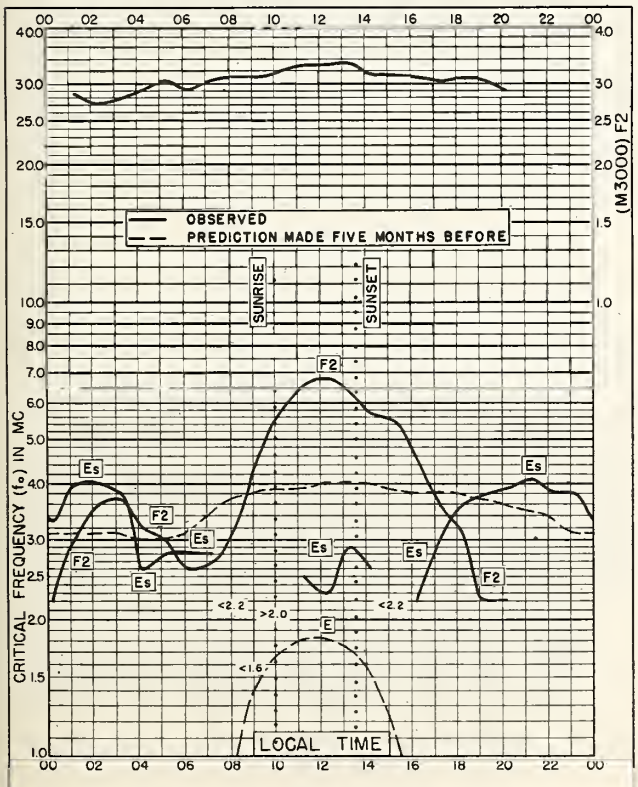

Fig. 3. TROMSO, NORWAY
69.7° N, 19.0°E NOVEMBER 1955

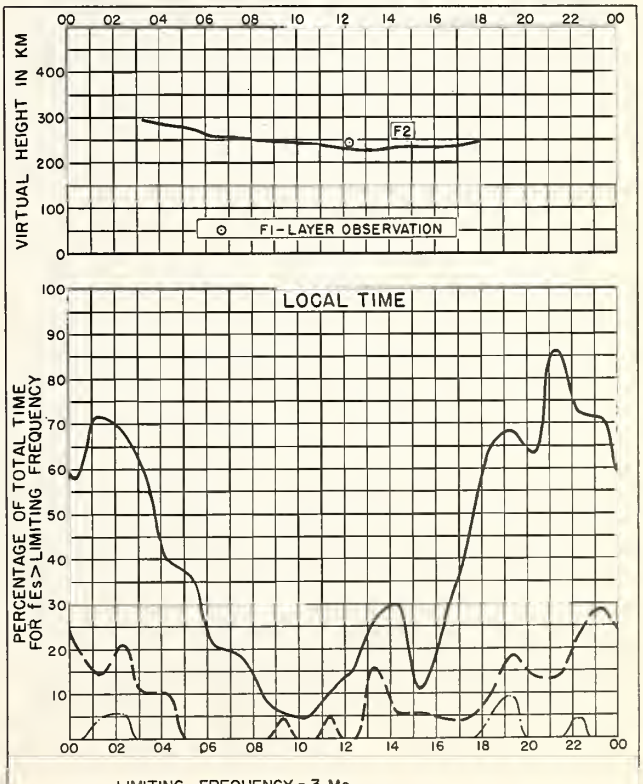

Fig. 4. TROMSO, NORWAY NOVEMBER 1955

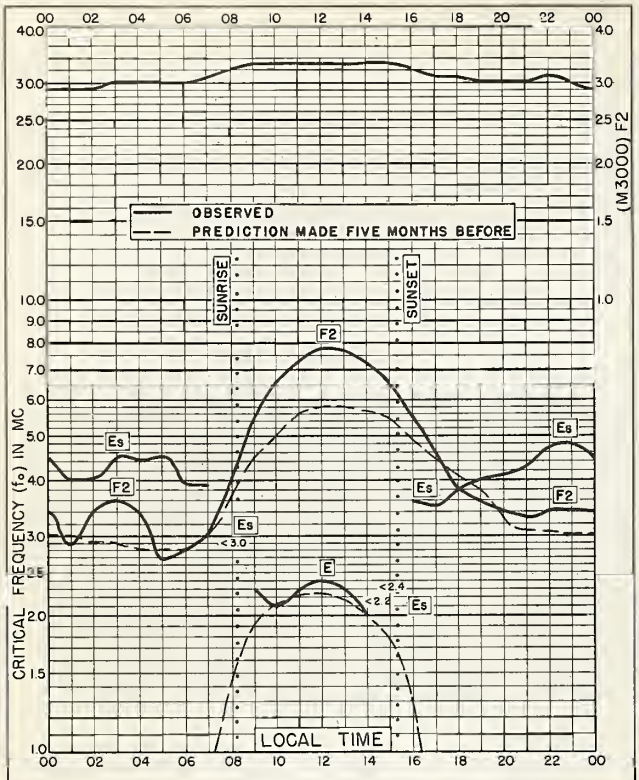

Fig. 5. NARSARSSUAK, GREENLAND
61.2°N, 45.4° W NOVEMBER 1955

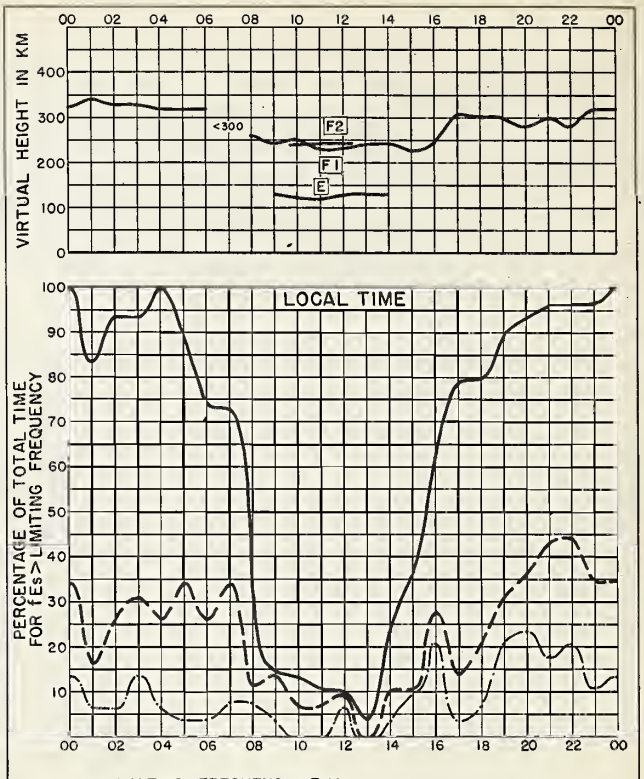

Fig. 6. NARSARSSUAK, GREENLAND NOVEMBER 1955

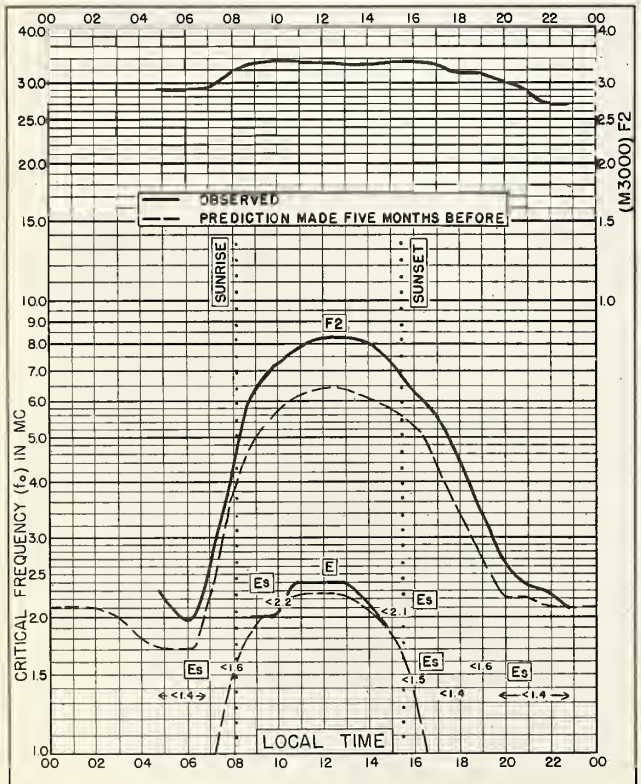

Fig. 7. OSLO, NORWAY
60.0°N, 11.1°E. NOVEMBER 1955

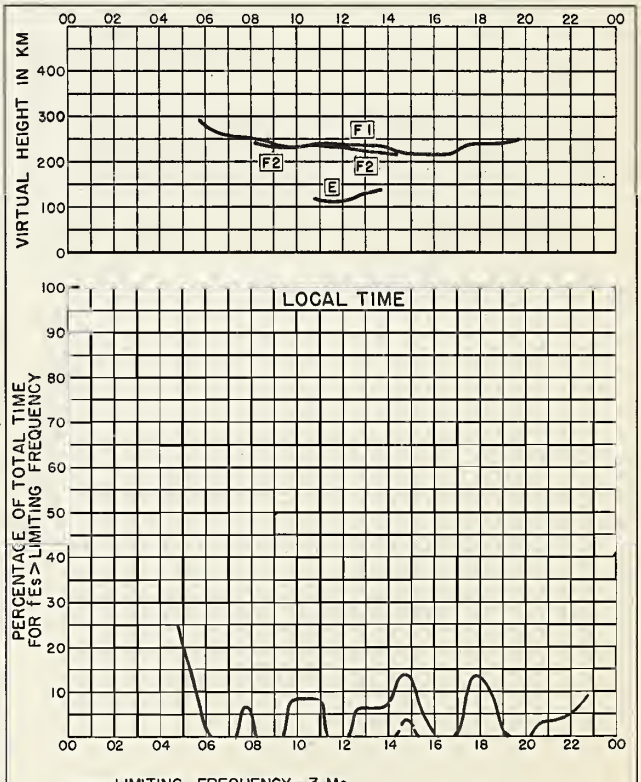

Fig. 8. OSLO, NORWAY NOVEMBER, 1955

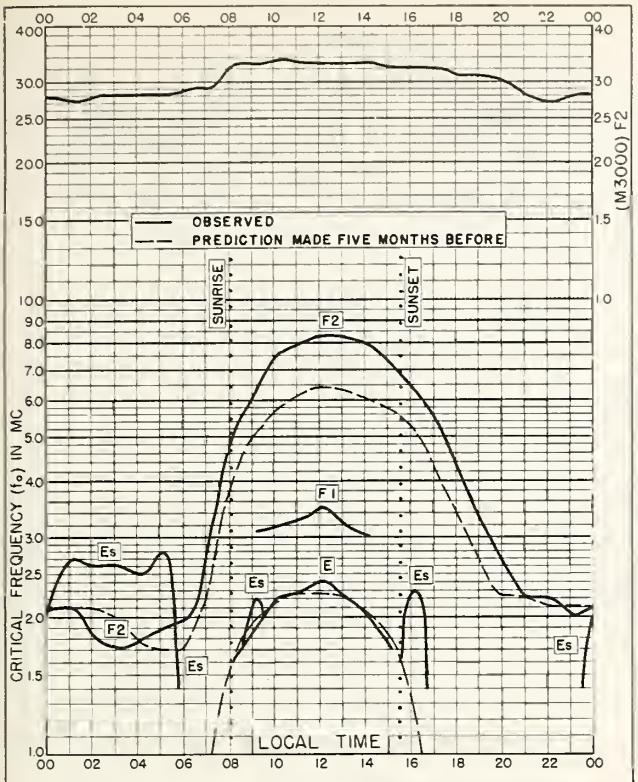

Fig. 9. UPSALA, SWEDEN
59.8°N, 17.6°E NOVEMBER 1955

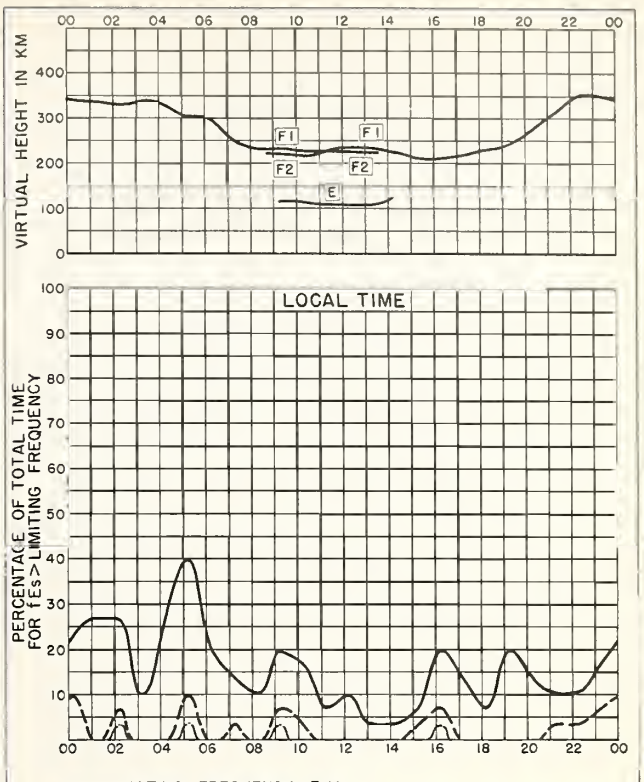

Fig. 10. UPSALA, SWEDEN NOVEMBER 1955

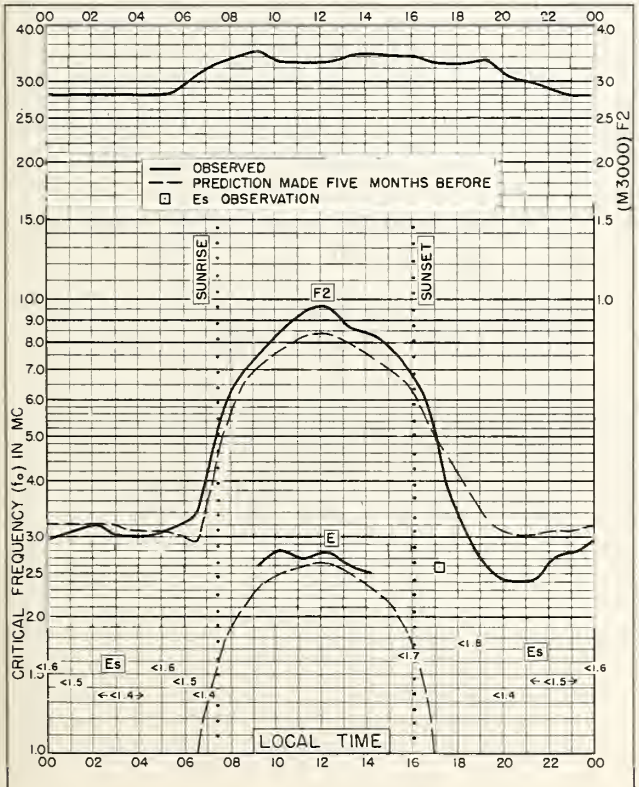

Fig. 11. ADAK, ALASKA
51.9°N, 176.6°W NOVEMBER 1955

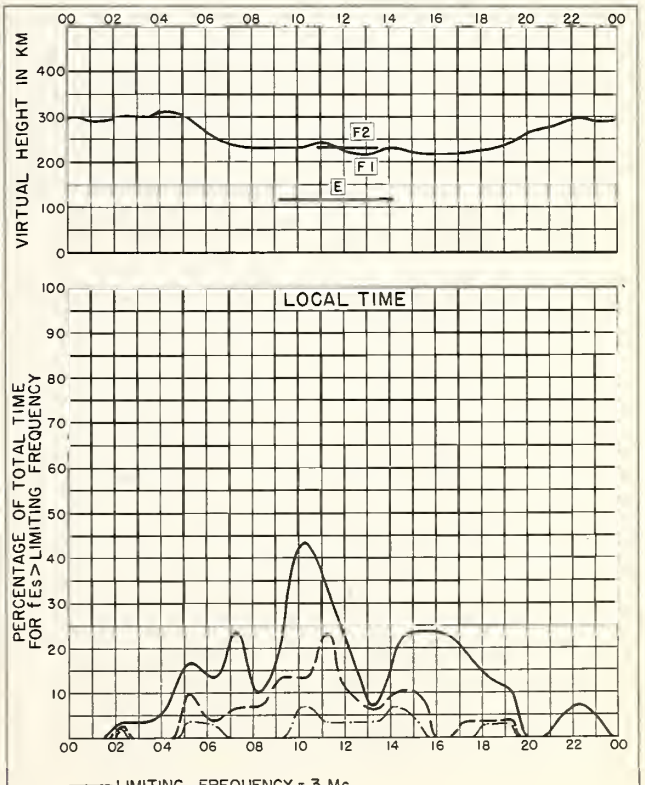

Fig. 12. ADAK, ALASKA NOVEMBER 1955

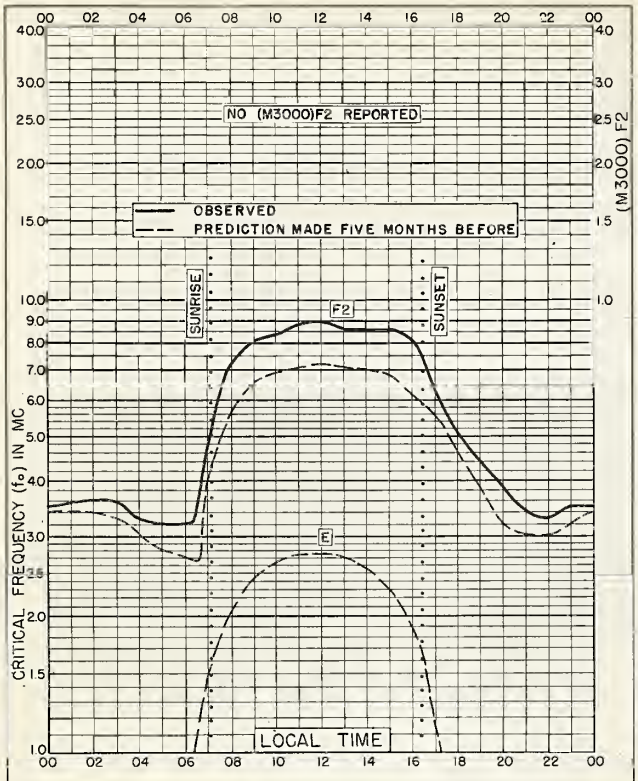

Fig. 13. GRAZ, AUSTRIA
47.1°N, 15.5°E NOVEMBER 1955

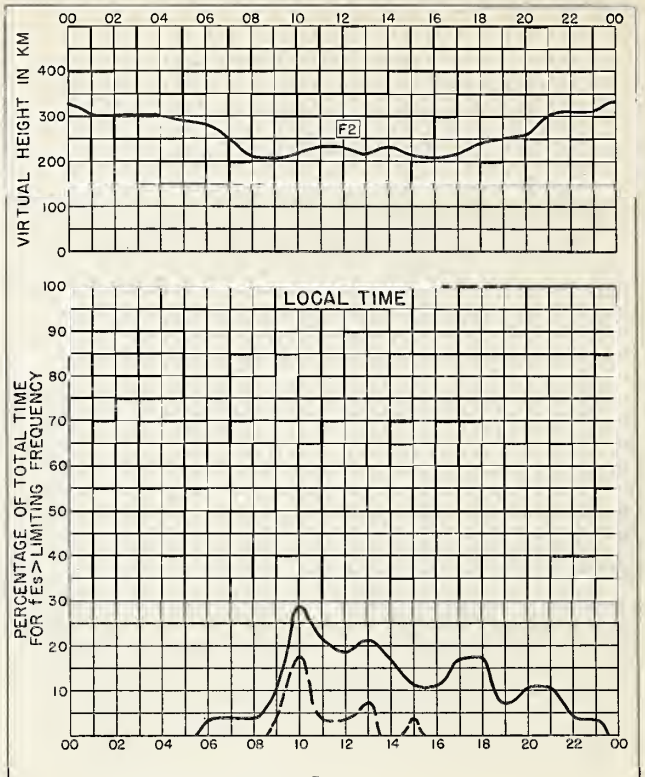

Fig. 14. GRAZ, AUSTRIA NOVEMBER 1955

NBS 490

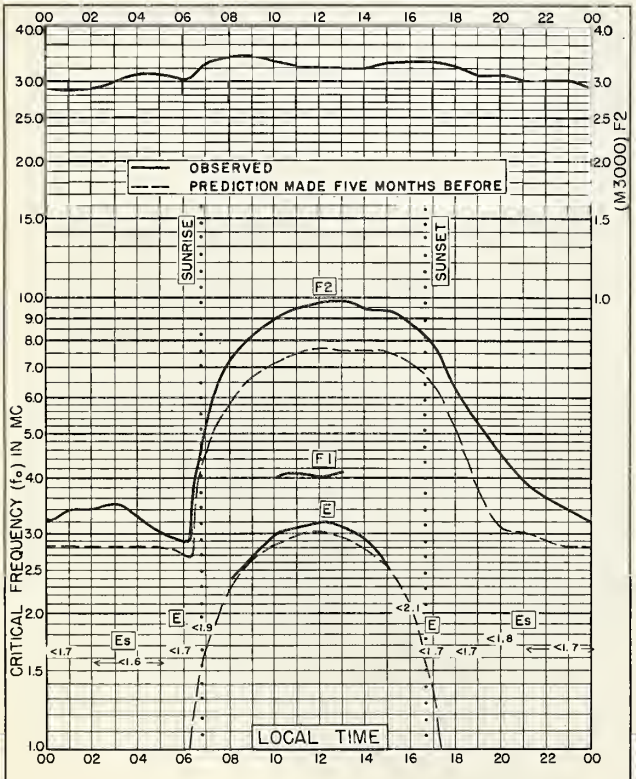

Fig. 15. FT. MONMOUTH, NEW JERSEY
40.3°N, 74.1°W NOVEMBER 1955

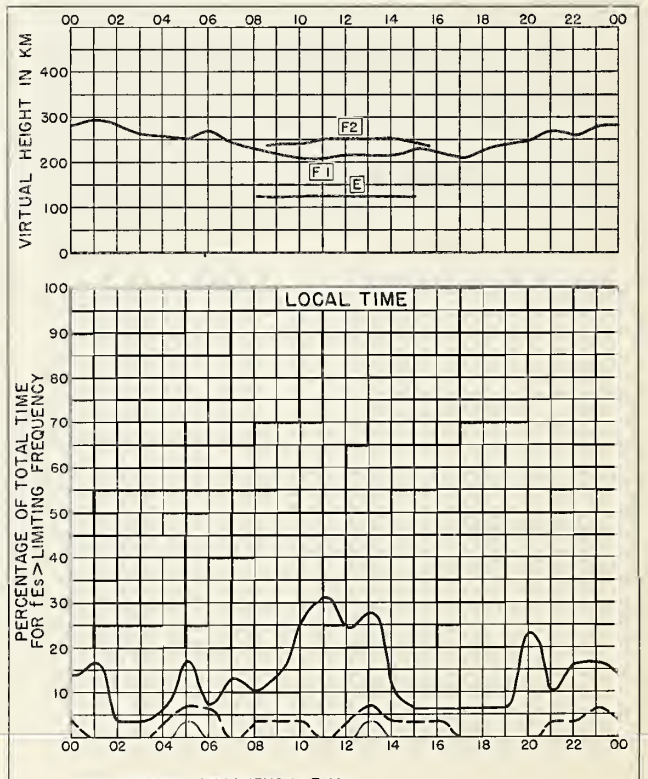

Fig. 16. FT. MONMOUTH, NEW JERSEY NOVEMBER 1955

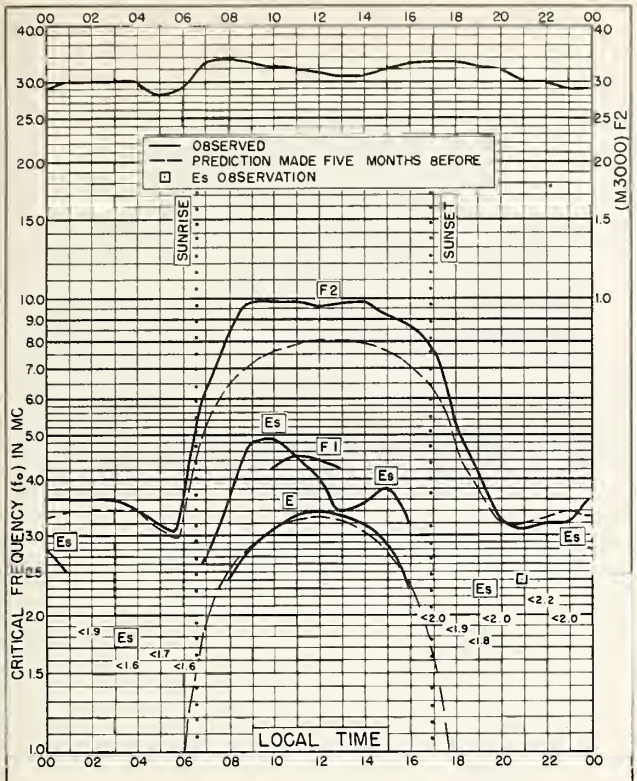

Fig. 17. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W NOVEMBER 1955

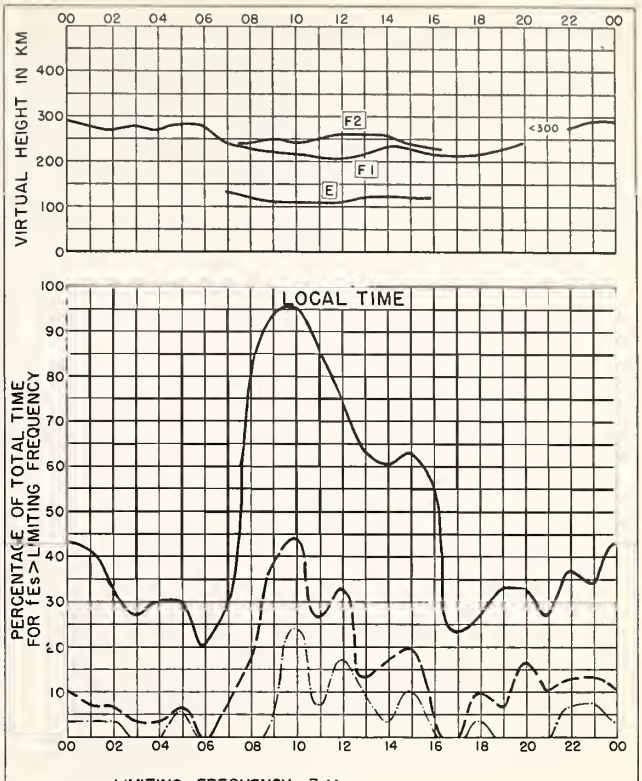

Fig. 18. WHITE SANDS, NEW MEXICO NOVEMBER 1955

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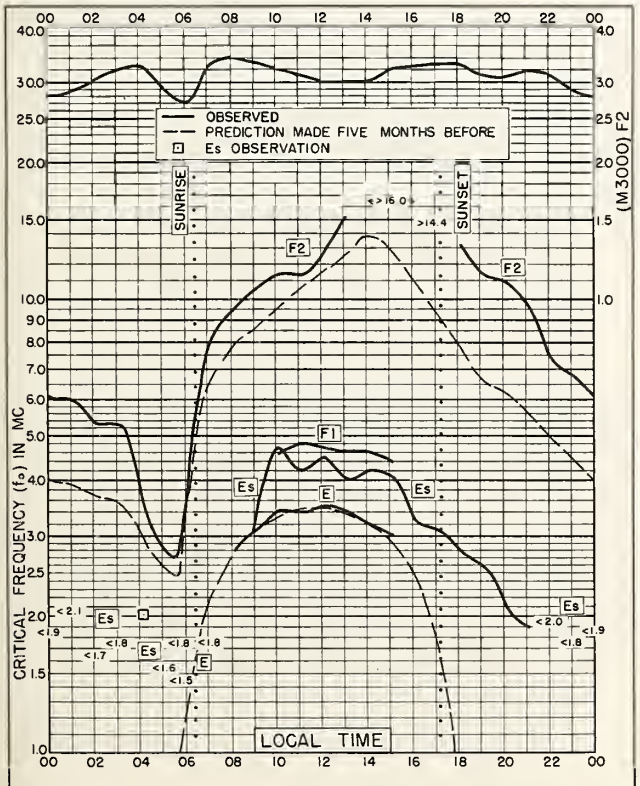


Fig. 19. FORMOSA, CHINA
25.0°N, 121.5°E NOVEMBER 1955

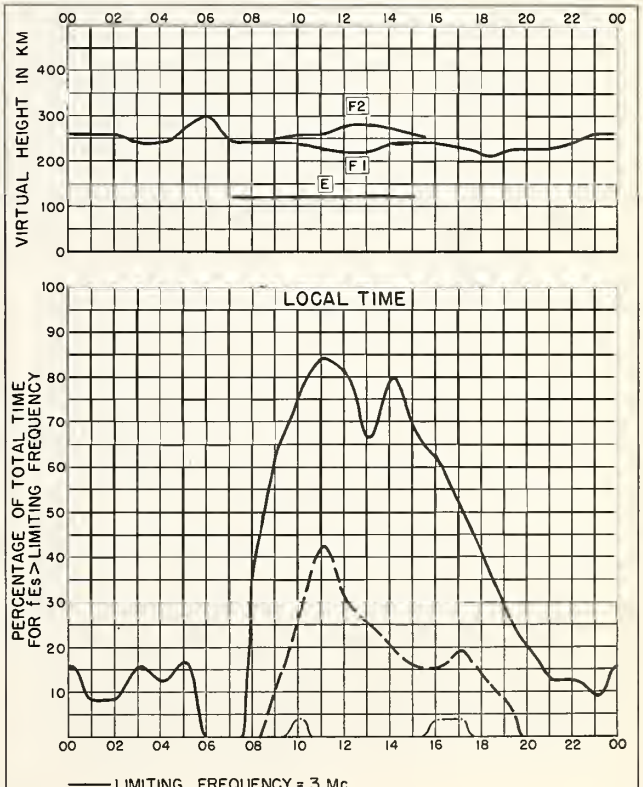


Fig. 20. FORMOSA, CHINA NOVEMBER 1955

U. S. GOVERNMENT PRINTING OFFICE 873638 NBS 490

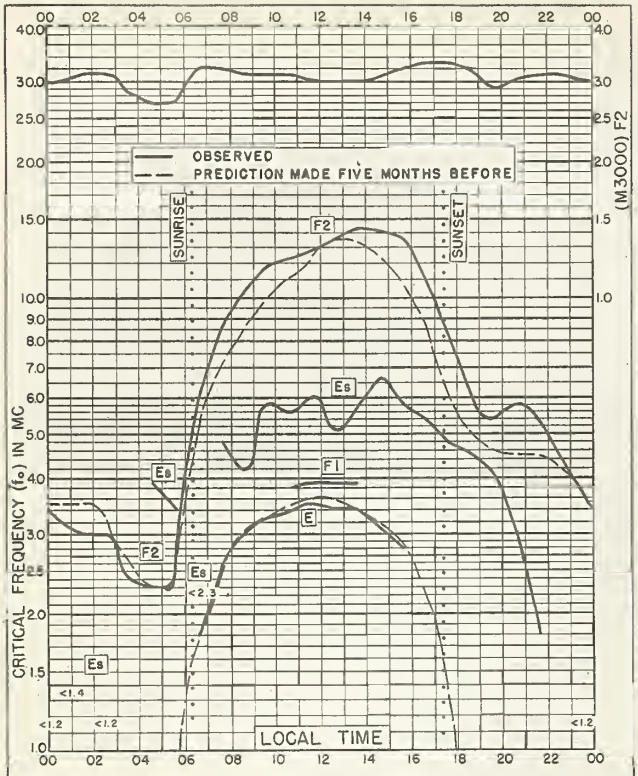


Fig. 21. MAUI, HAWAII
20.8°N, 156.5° W
NOVEMBER 1955

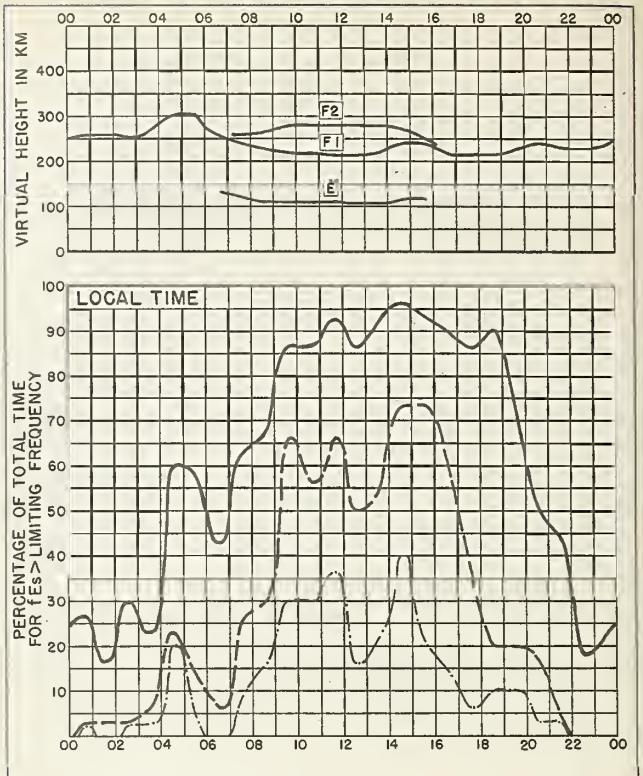


Fig. 22. MAUI, HAWAII
NOVEMBER 1955

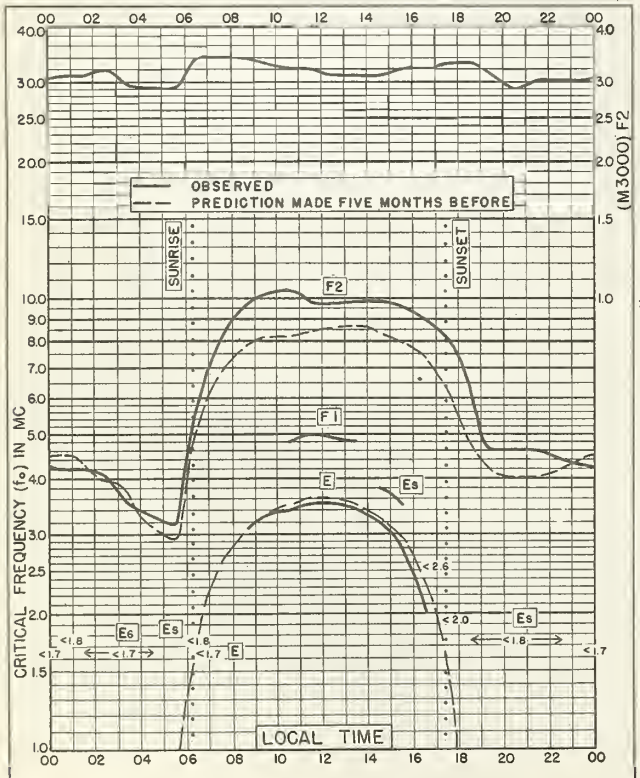


Fig. 23. PUERTO RICO, W.I.
18.5°N, 67.2°W
NOVEMBER 1955

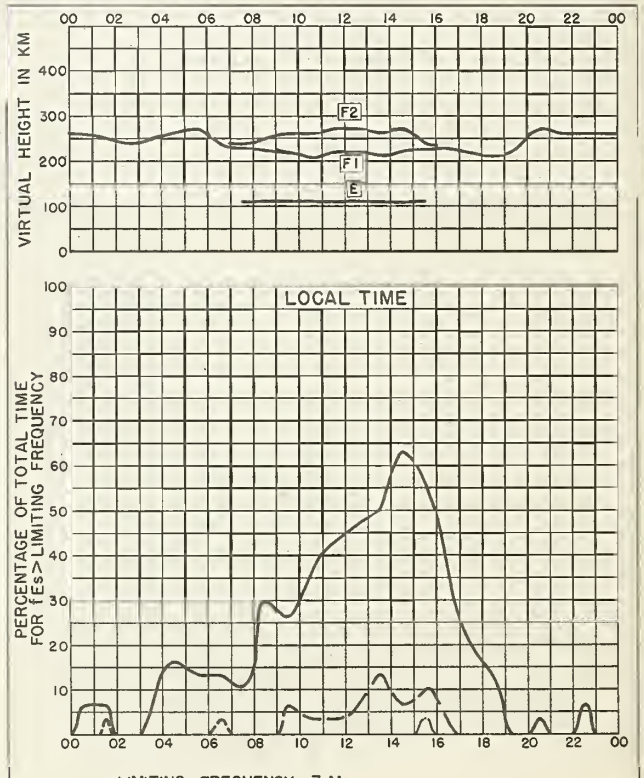


Fig. 24. PUERTO RICO, W.I.
NOVEMBER 1955

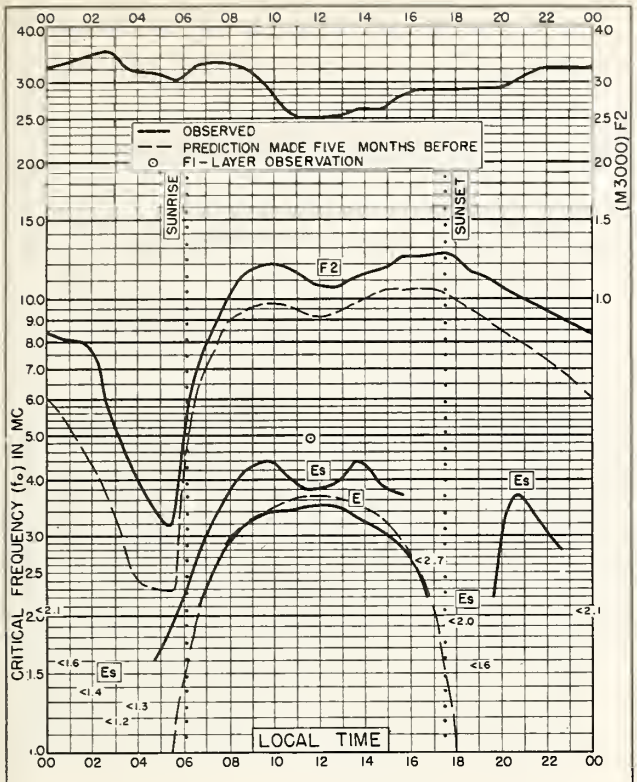


Fig. 25. GUAM I.
13.6°N, 144.9°E NOVEMBER 1955

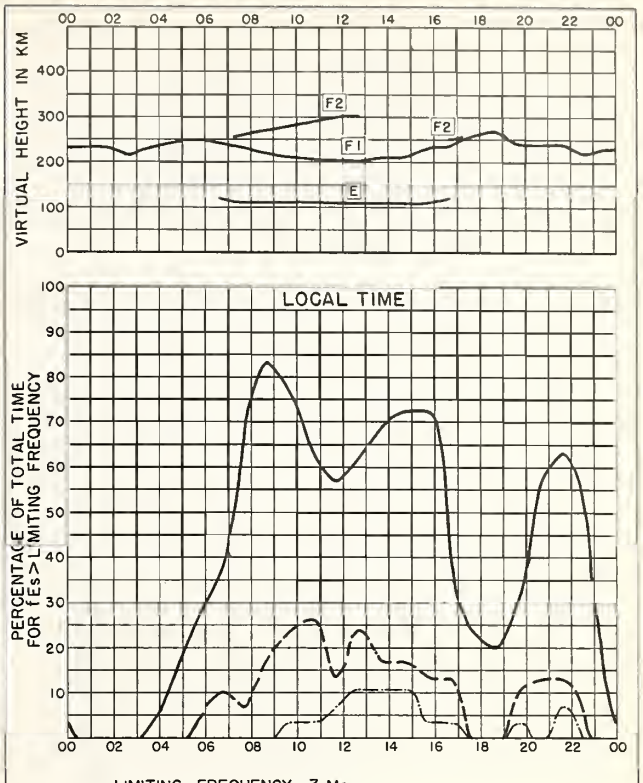


Fig. 26. GUAM I. NOVEMBER 1955

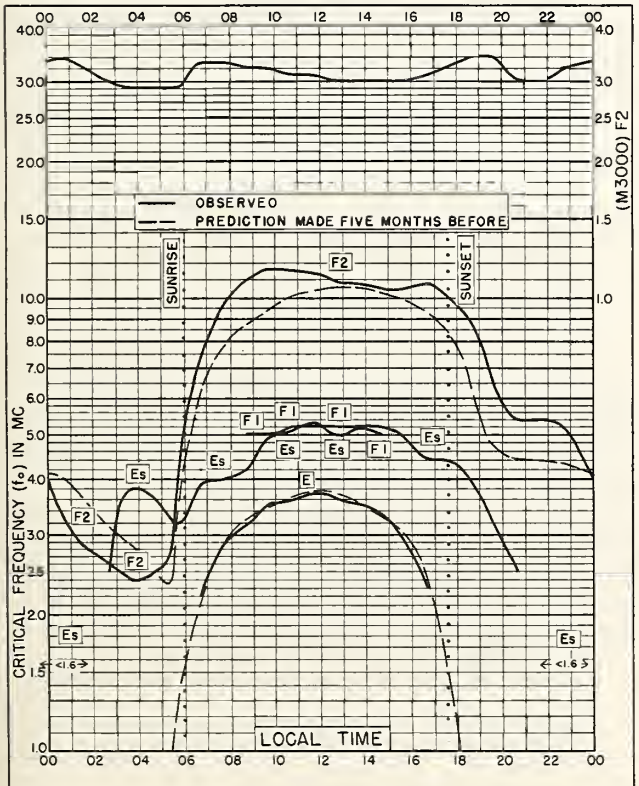


Fig. 27. PANAMA CANAL ZONE
9.4°N, 79.9° W NOVEMBER 1955

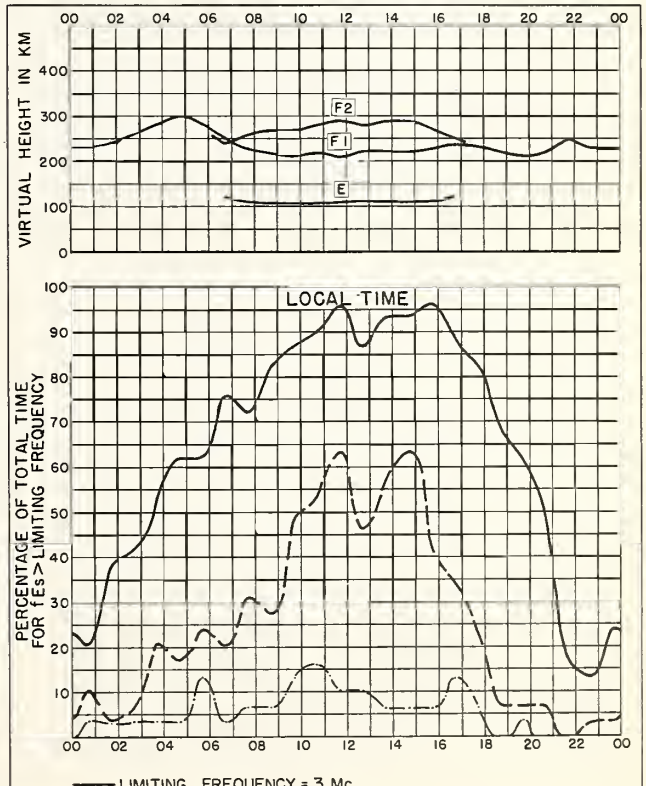


Fig. 28. PANAMA CANAL ZONE NOVEMBER 1955

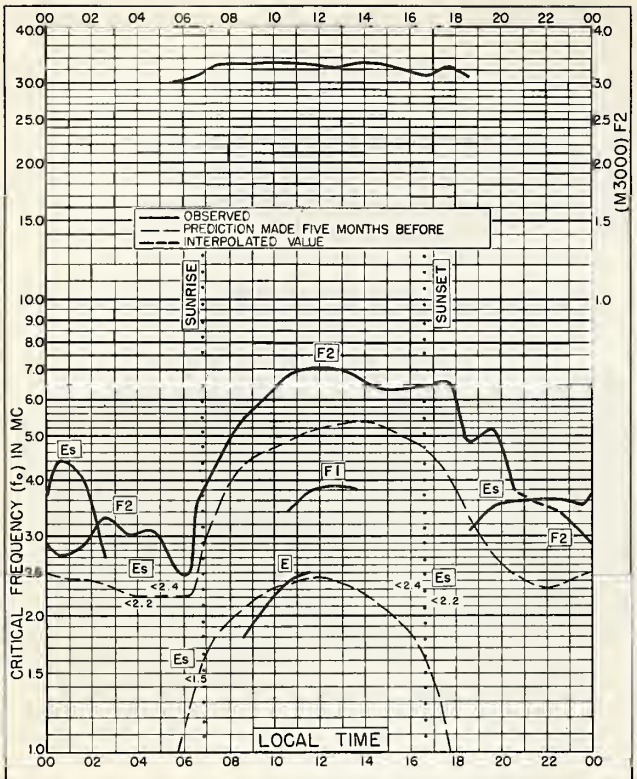


Fig. 29. REYKJAVIK, ICELAND
64.1°N, 21.8°W OCTOBER 1955

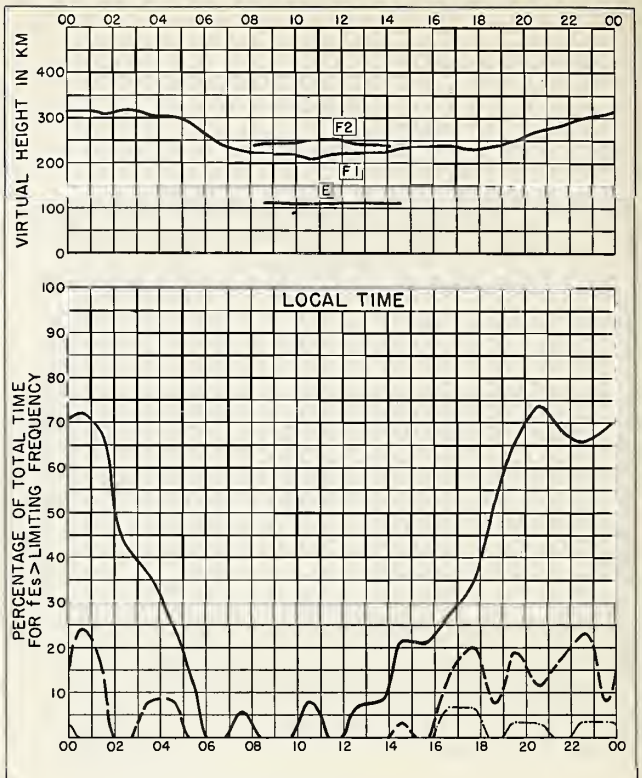


Fig. 30. REYKJAVIK, ICELAND OCTOBER 1955

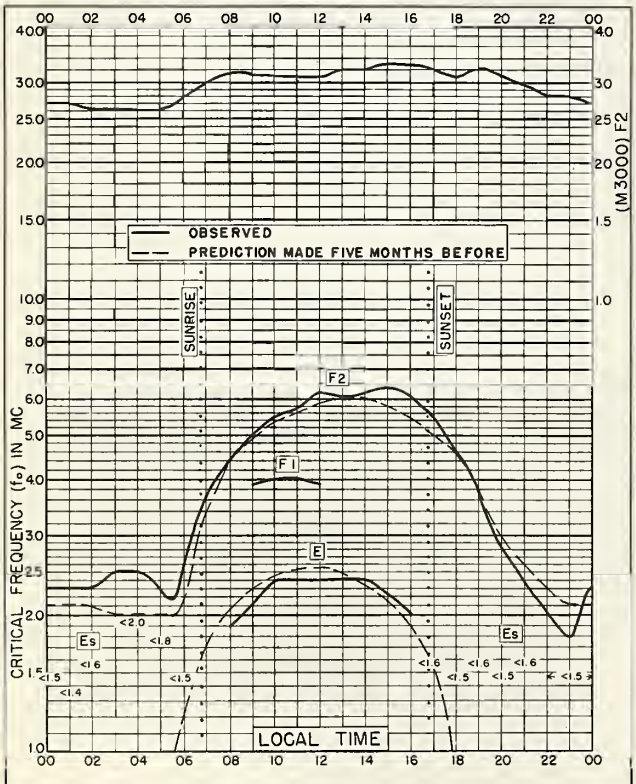


Fig. 31. ANCHORAGE, ALASKA
61.2°N, 149.9°W OCTOBER 1955

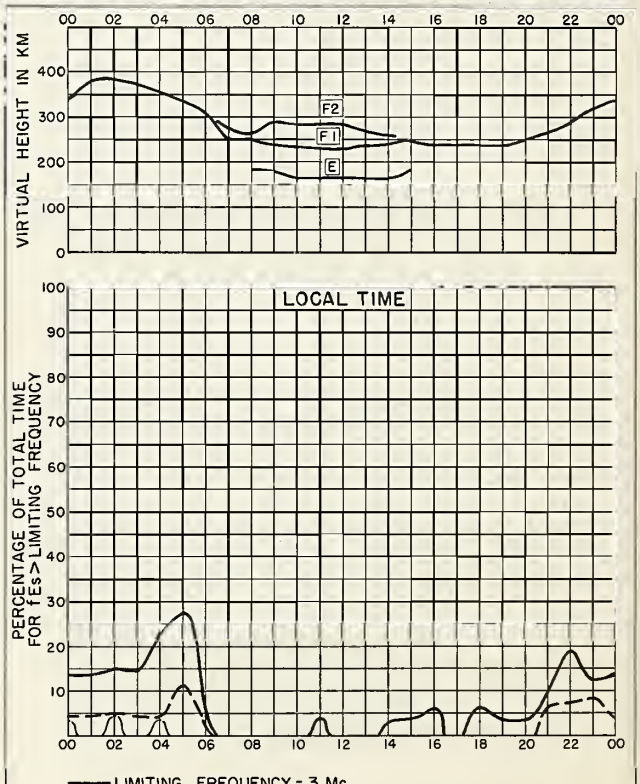


Fig. 32. ANCHORAGE, ALASKA OCTOBER 1955

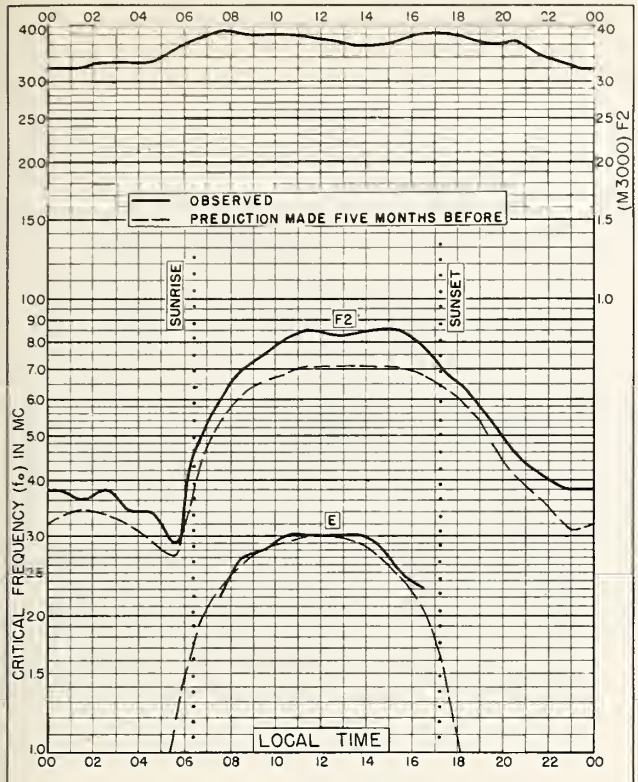


Fig. 33. SCHWARZENBURG, SWITZERLAND
46.8°N, 7.3°E OCTOBER 1955

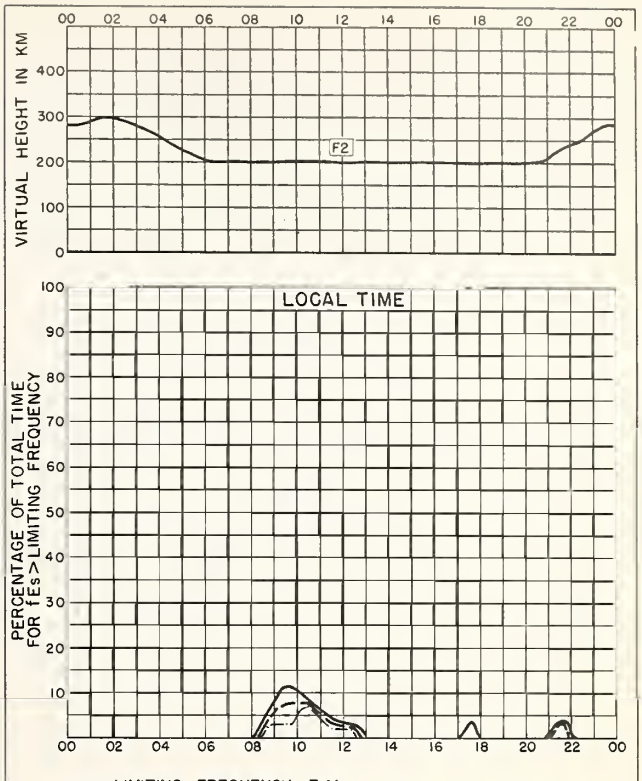


Fig. 34. SCHWARZENBURG, SWITZERLAND OCTOBER 1955

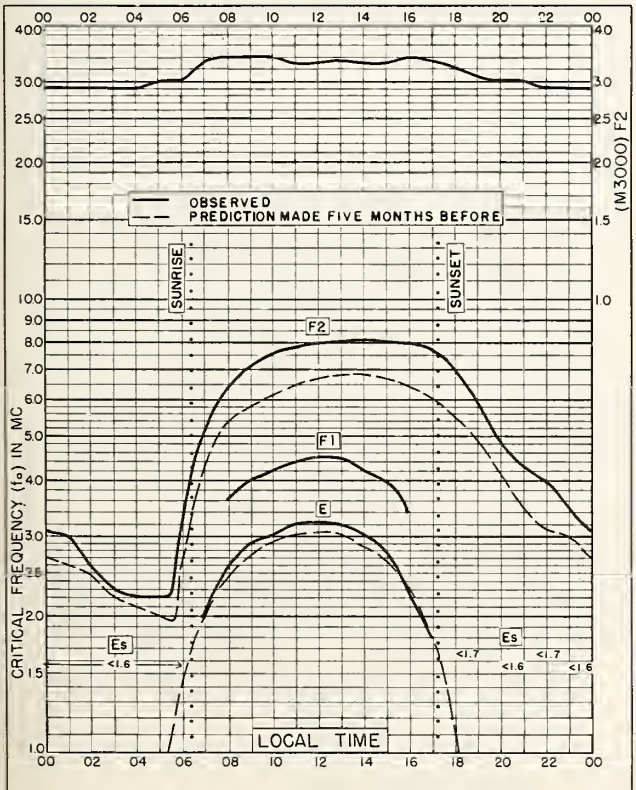


Fig. 35. OTTAWA, CANADA
45.4°N, 75.9°W OCTOBER 1955

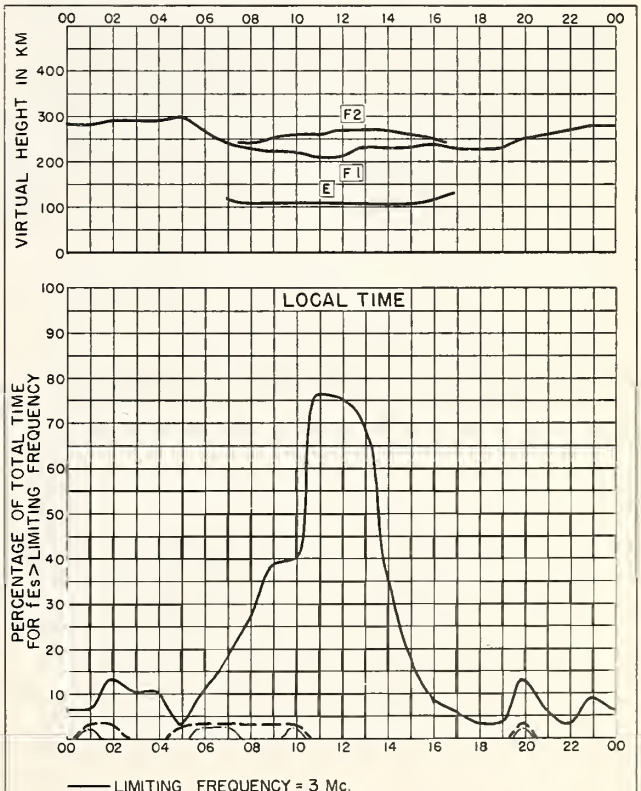


Fig. 36. OTTAWA, CANADA OCTOBER 1955

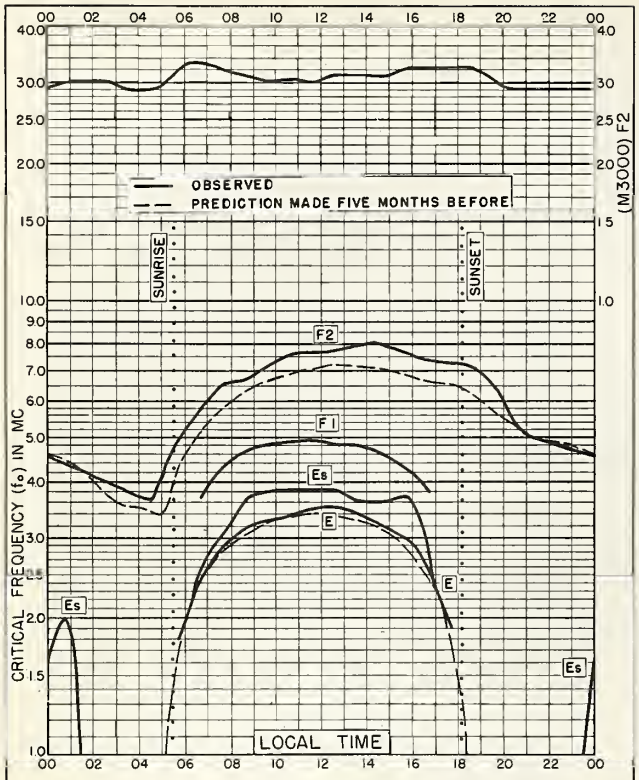


Fig. 37. WATHEROO, W. AUSTRALIA
30.3°S, 115.9° E. OCTOBER 1955

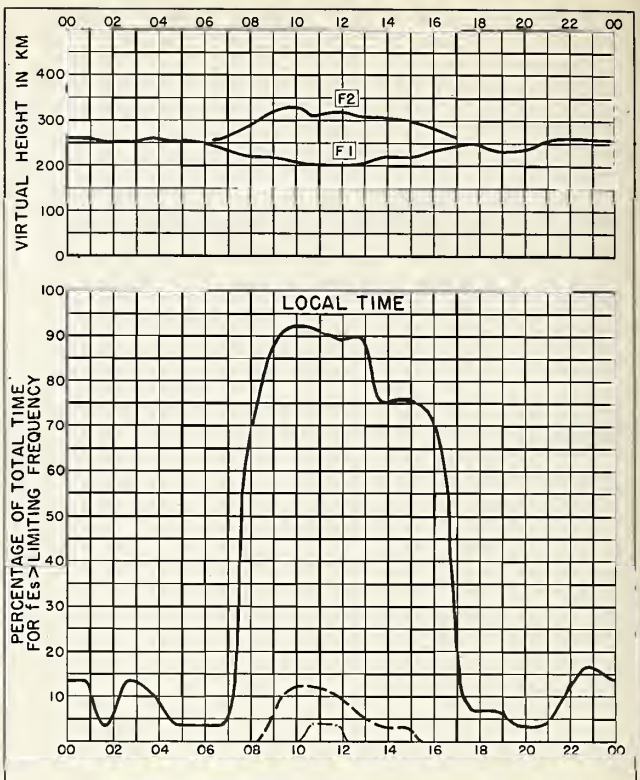


Fig. 38. WATHEROO, W. AUSTRALIA OCTOBER 1955

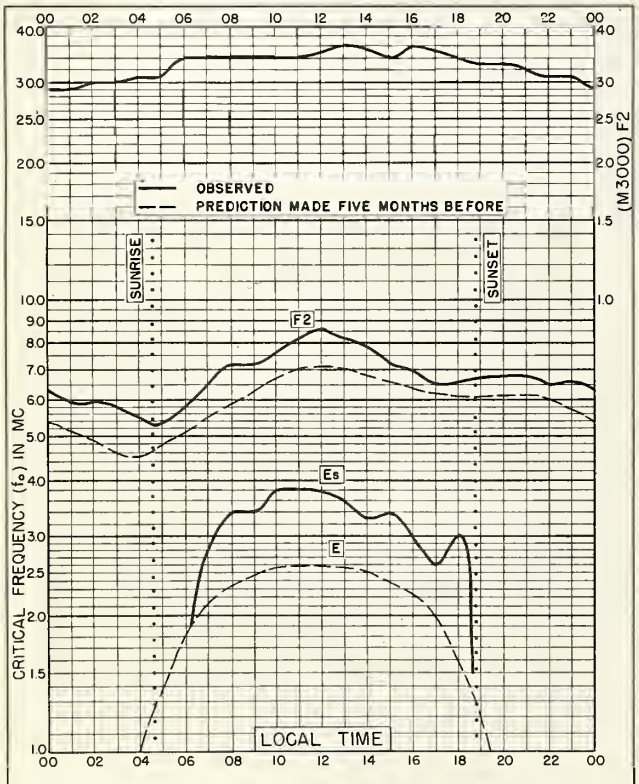


Fig. 39. DECEPCION I.
63.0°S, 60.7°W OCTOBER 1955

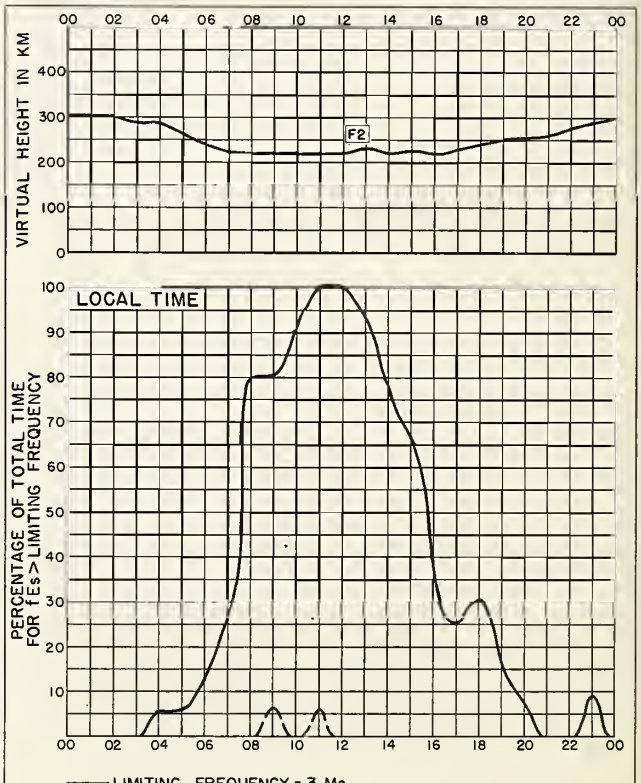


Fig. 40. DECEPCION I. OCTOBER 1955

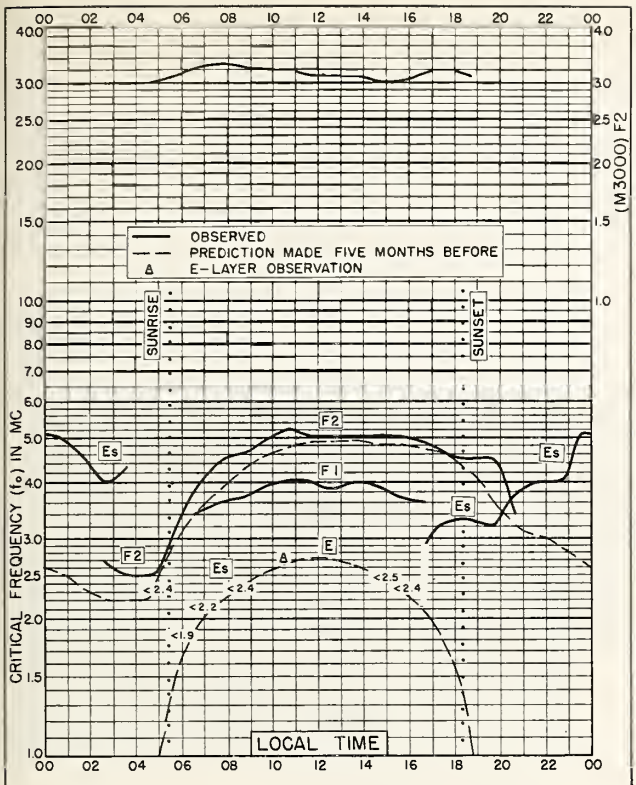


Fig. 41 REYKJAVIK, ICELAND
64.1°N, 21.8°W SEPTEMBER 1955

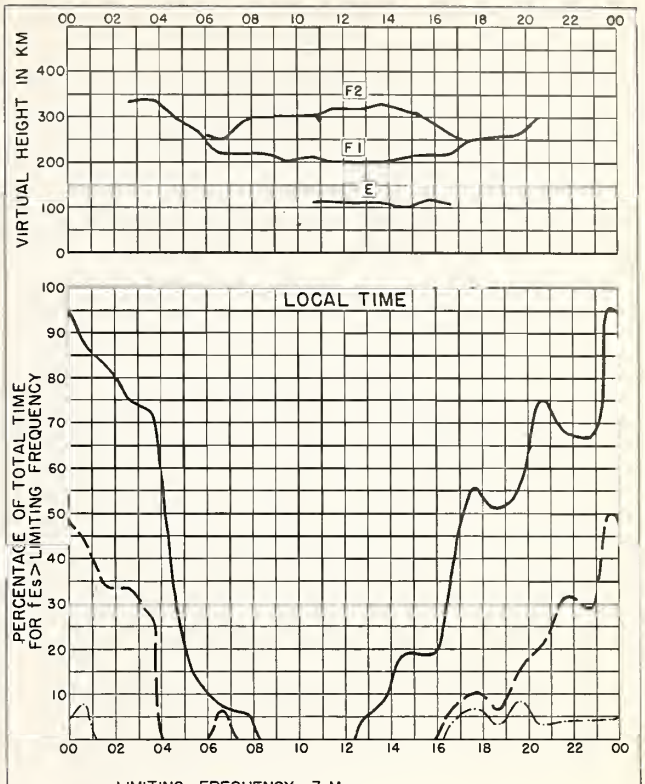


Fig. 42. REYKJAVIK, ICELAND SEPTEMBER 1955

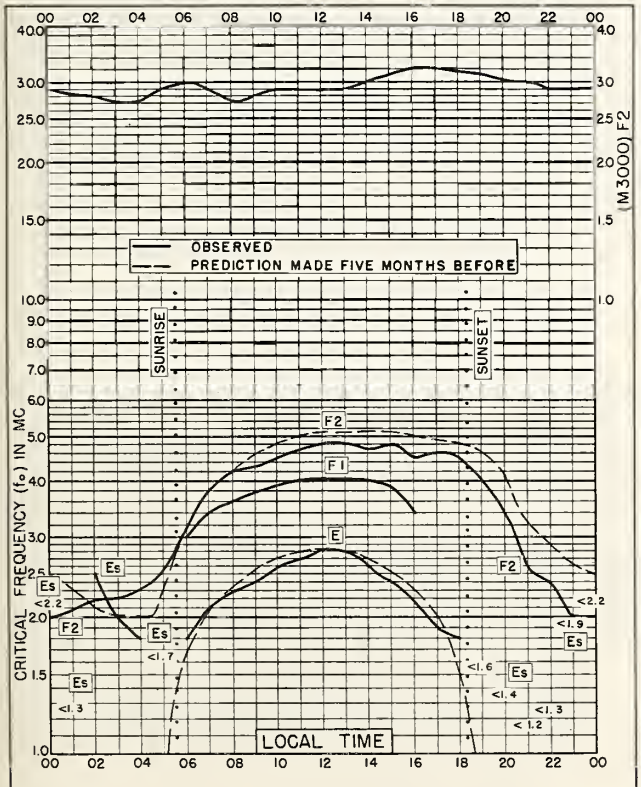


Fig. 43. ANCHORAGE, ALASKA
61.2°N, 149.9°W SEPTEMBER 1955

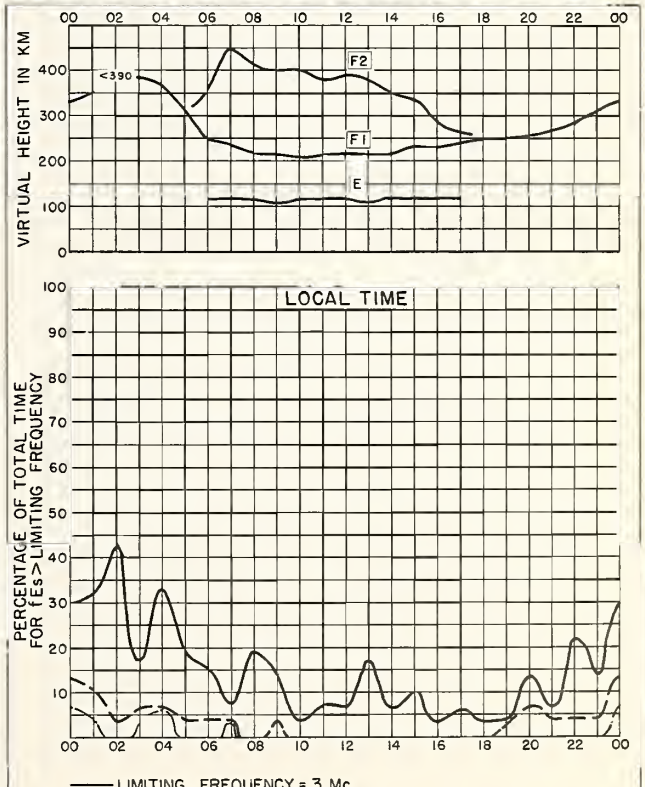


Fig. 44. ANCHORAGE, ALASKA SEPTEMBER 1955

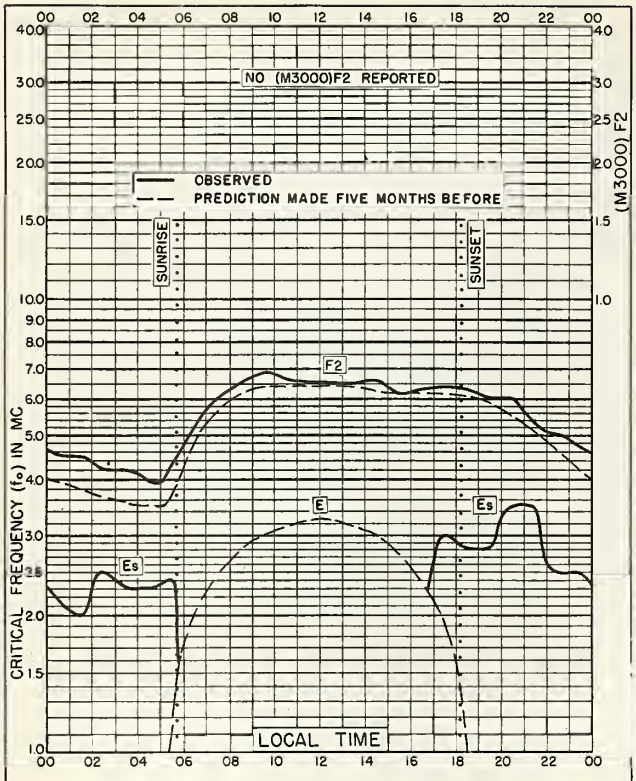


Fig. 45. WAKKANAI, JAPAN
45.4°N, 141.7°E SEPTEMBER 1955

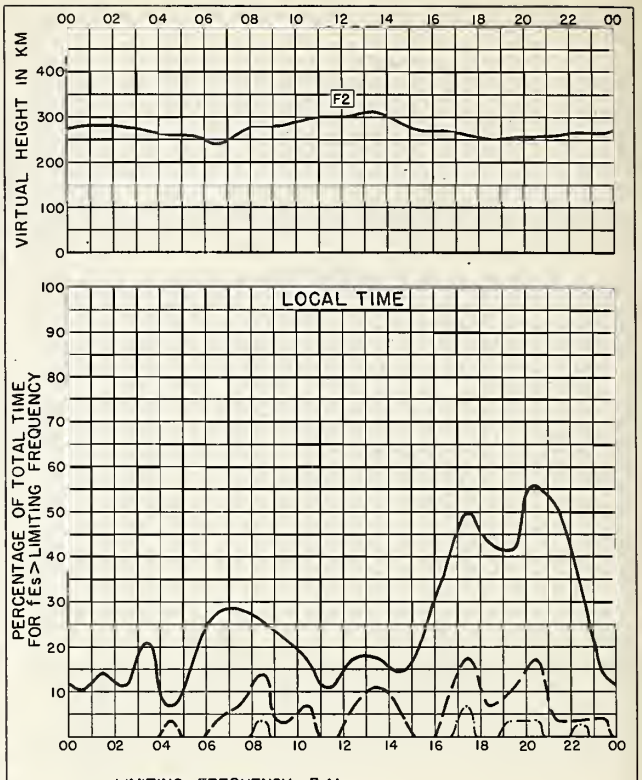


Fig. 46. WAKKANAI, JAPAN SEPTEMBER 1955

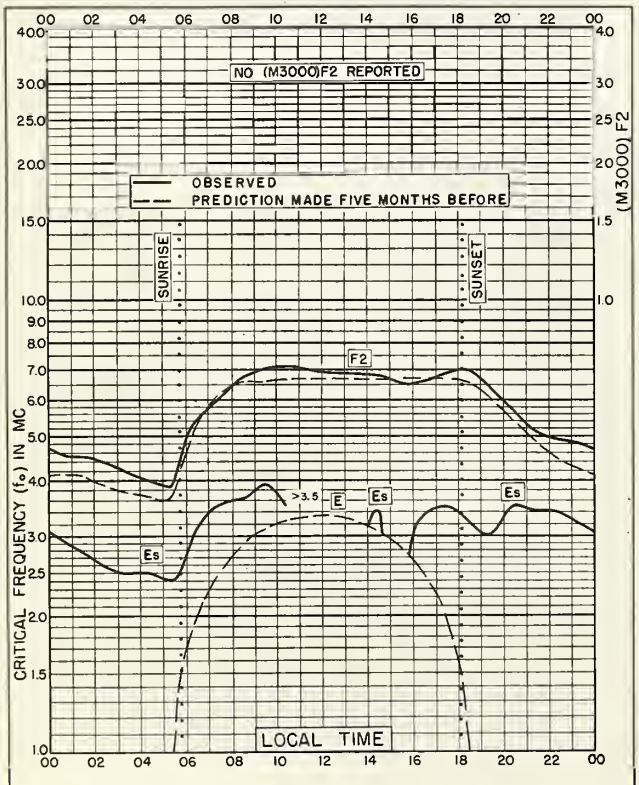


Fig. 47. AKITA, JAPAN
39.7°N, 140.1°E. SEPTEMBER 1955

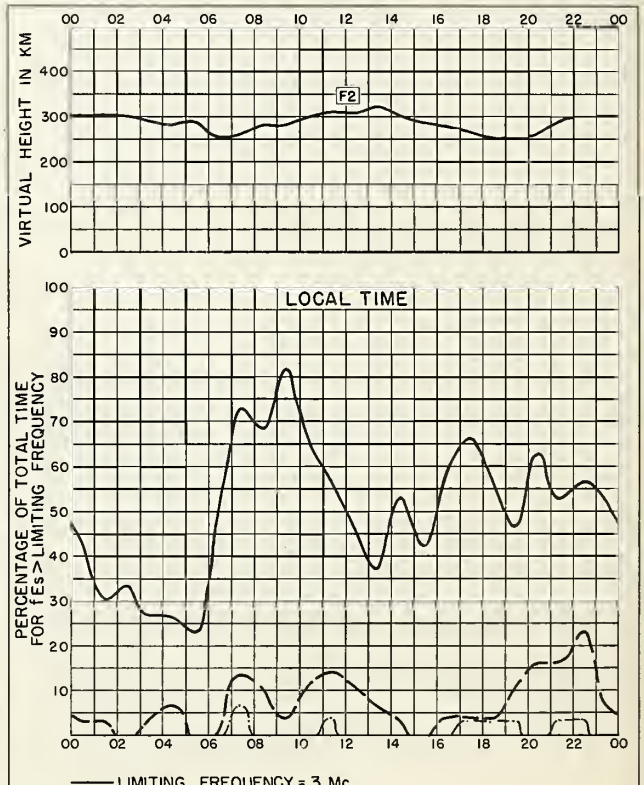


Fig. 48. AKITA, JAPAN SEPTEMBER 1955

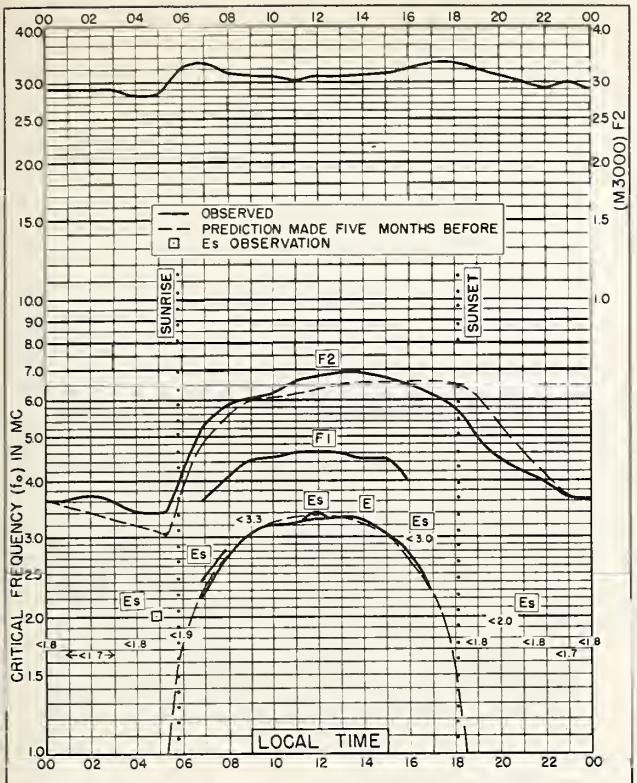


Fig. 49. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W SEPTEMBER 1955

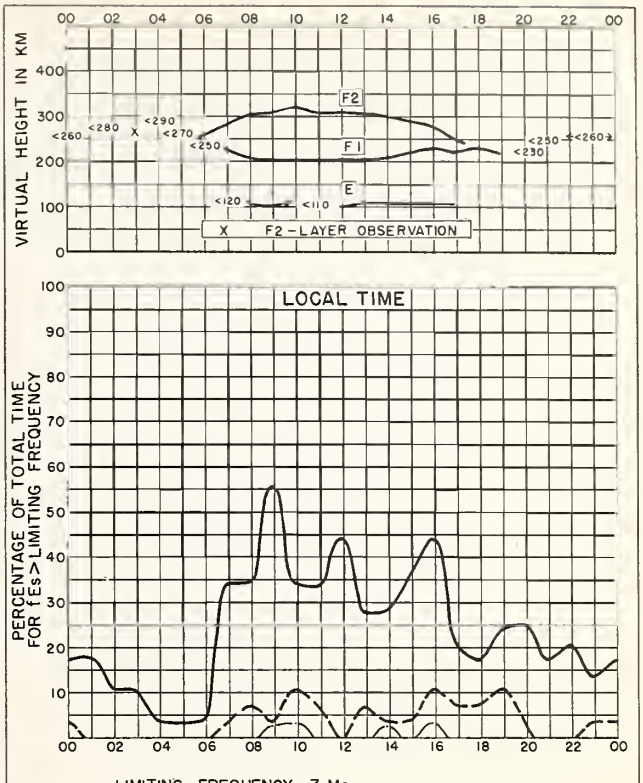


Fig. 50. SAN FRANCISCO, CALIFORNIA SEPTEMBER 1955

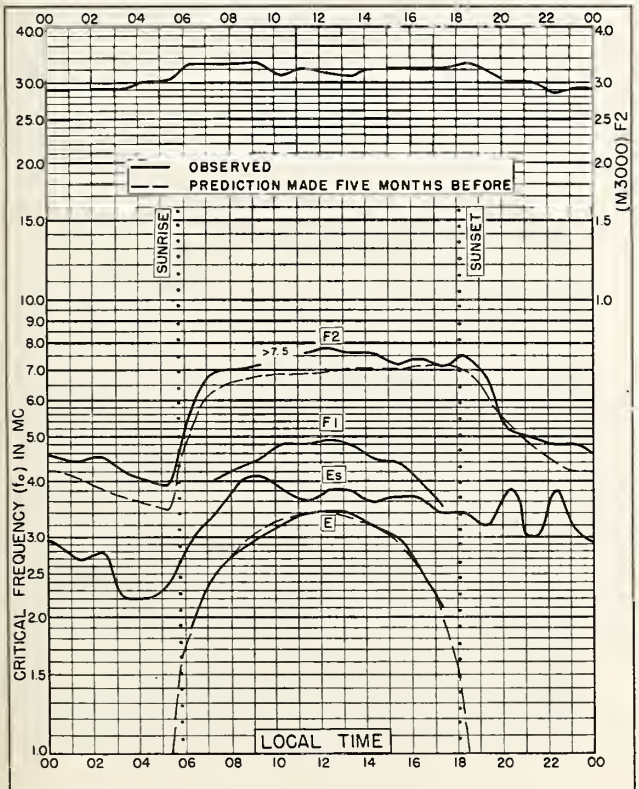


Fig. 51. TOKYO, JAPAN
35.7°N, 139.5°E. SEPTEMBER 1955

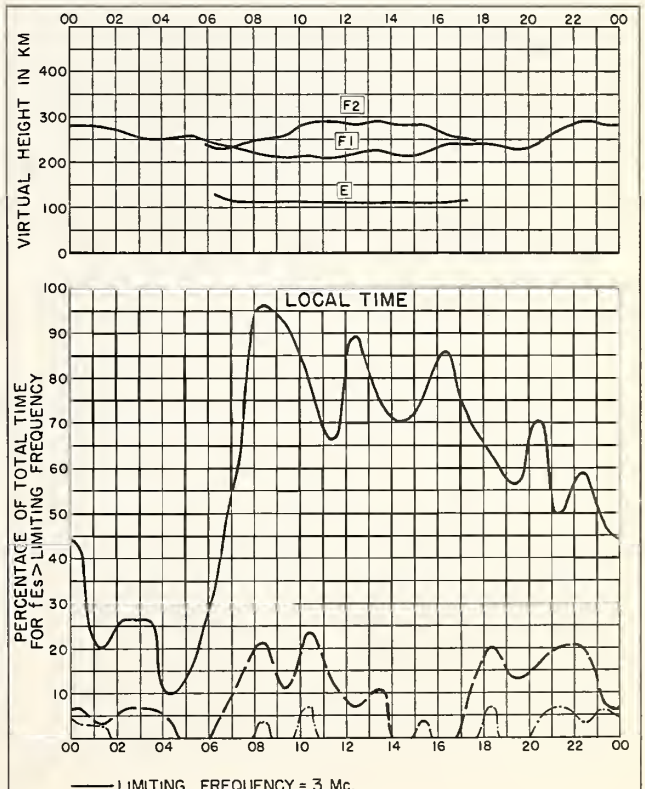


Fig. 52. TOKYO, JAPAN SEPTEMBER 1955

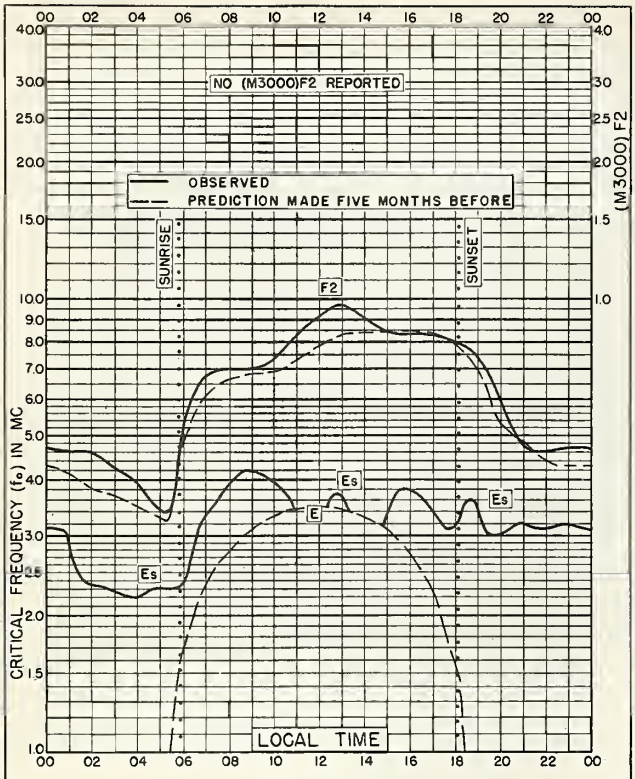


Fig. 53. YAMAGAWA, JAPAN
31.2°N, 130.6°E SEPTEMBER 1955

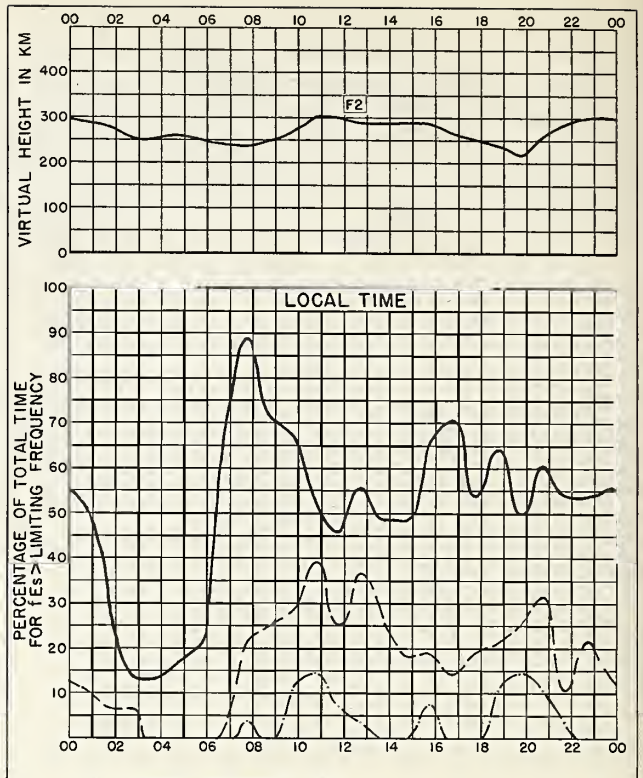


Fig. 54. YAMAGAWA, JAPAN SEPTEMBER 1955

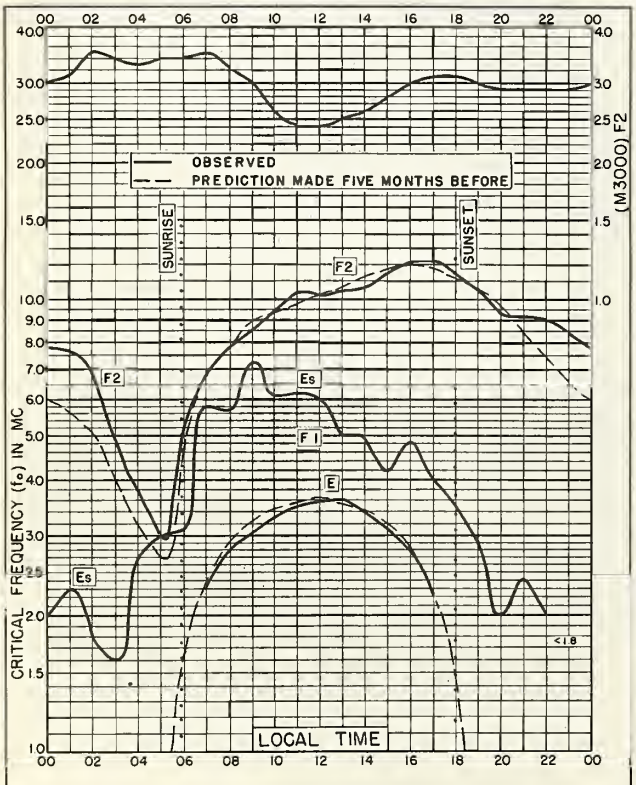


Fig. 55. BAGUIO, P. I.
16.4°N, 120.6°E SEPTEMBER 1955

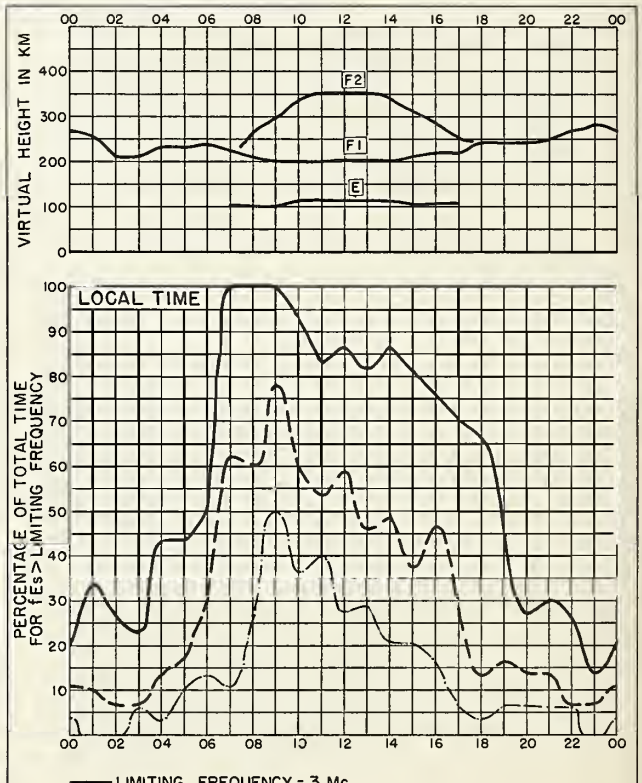


Fig. 56. BAGUIO, P. I. SEPTEMBER 1955

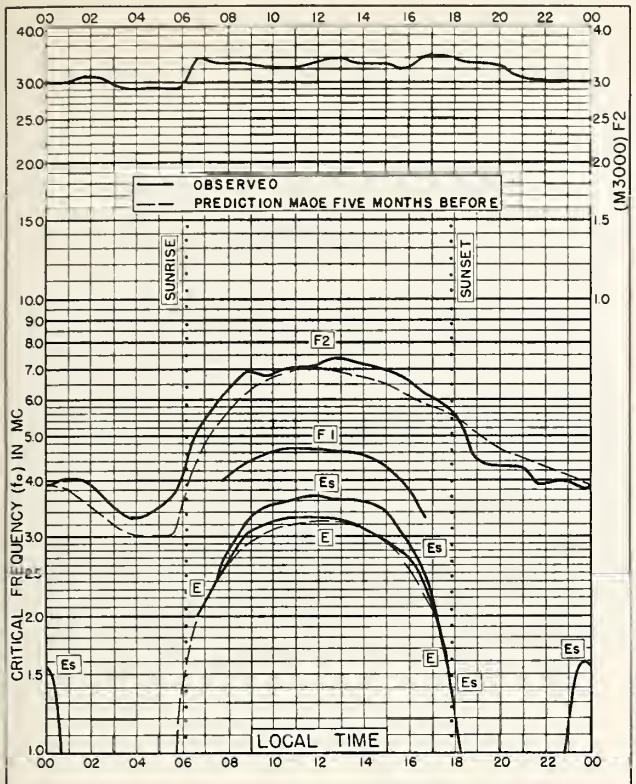


Fig. 57. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E SEPTEMBER 1955

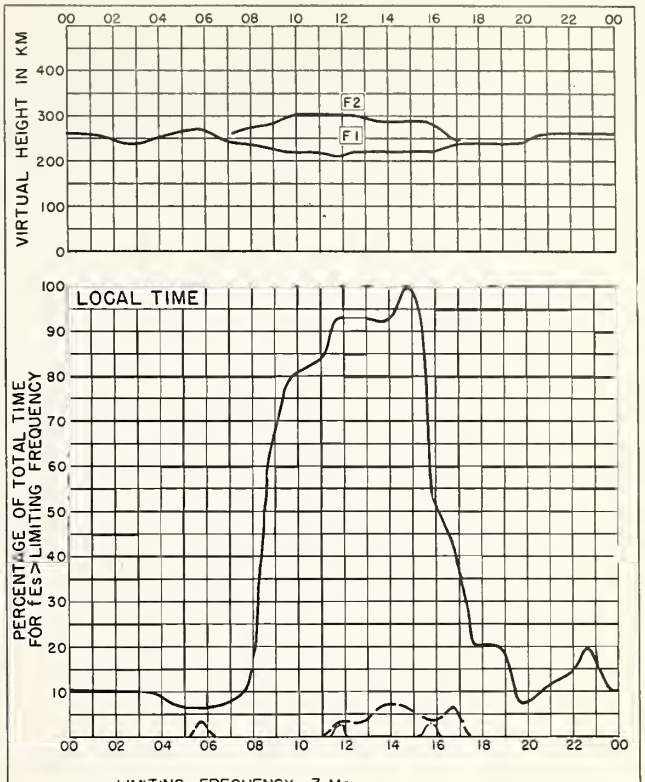


Fig. 58. WATHEROO, W. AUSTRALIA SEPTEMBER 1955

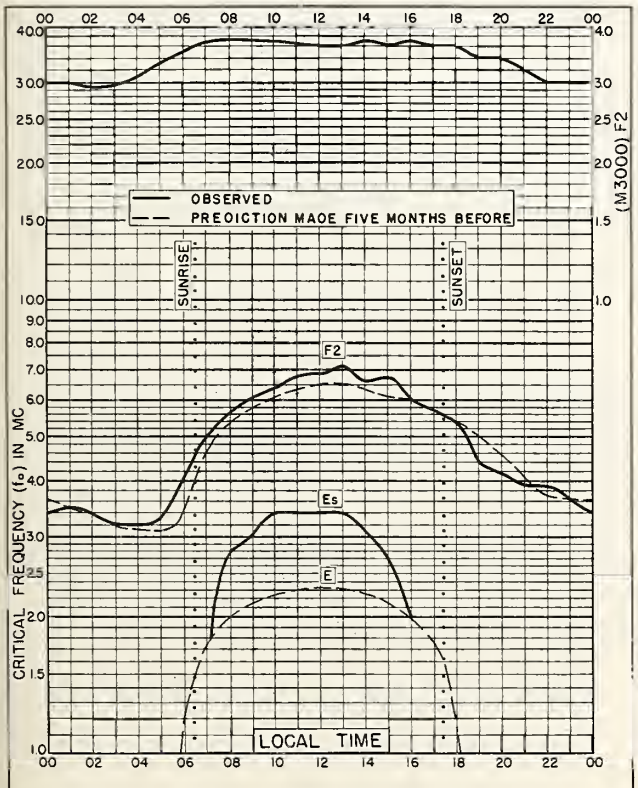


Fig. 59. DECEPCION I.
63.0°S, 60.7°W SEPTEMBER 1955

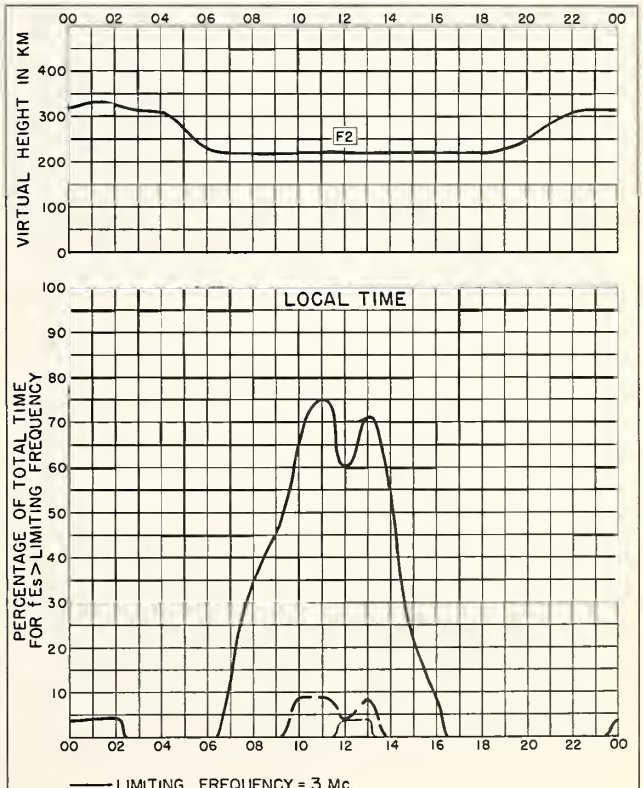


Fig. 60. DECEPCION I. SEPTEMBER 1955

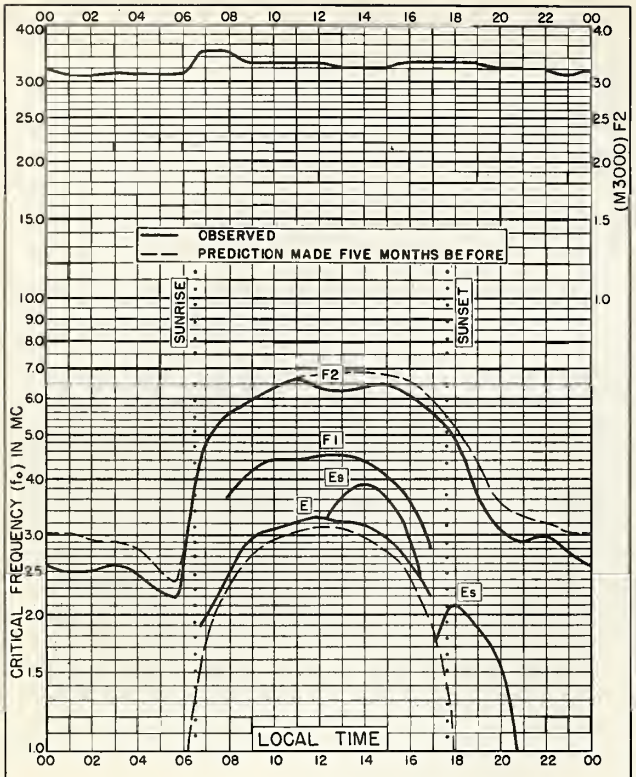
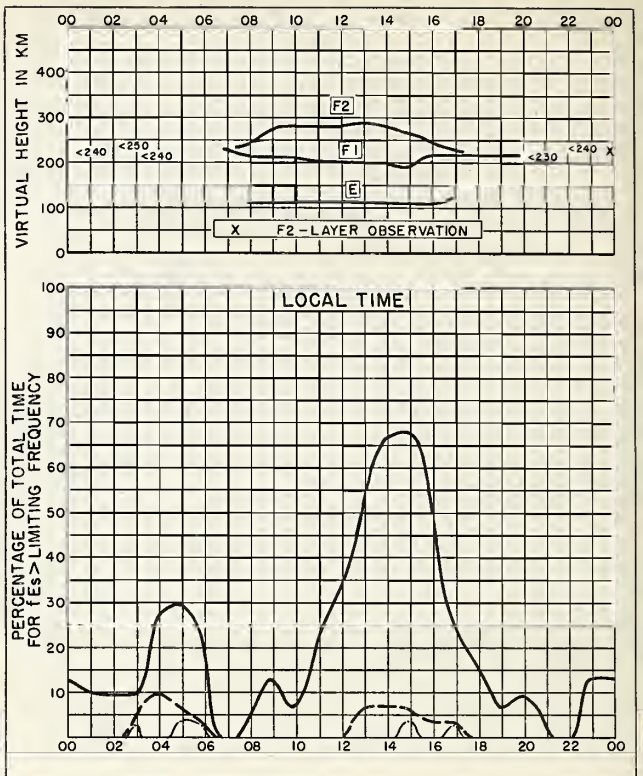


Fig. 61. JOHANNESBURG, UNION OF S. AFRICA
26.2°S, 28.1°E AUGUST 1955



AUGUST 1955
Fig. 62. JOHANNESBURG, UNION OF S. AFRICA

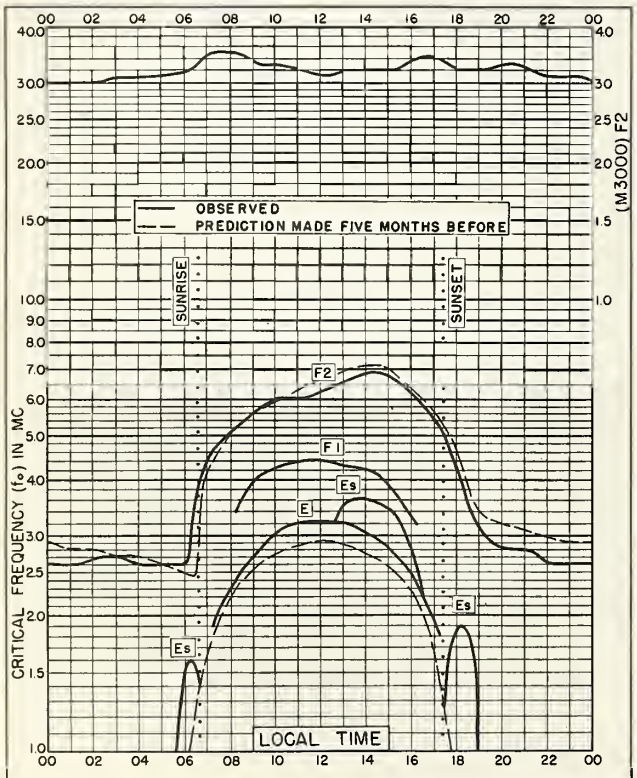
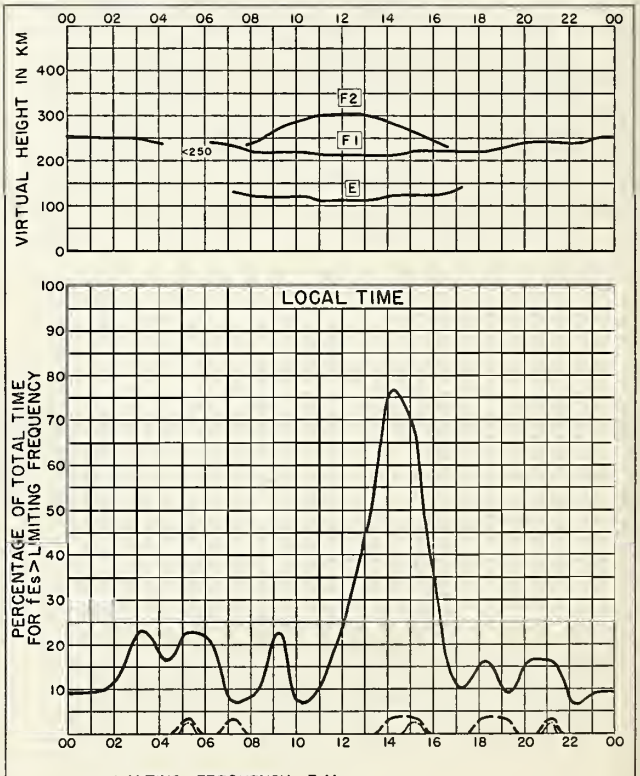


Fig. 63. CAPETOWN, UNION OF S. AFRICA
34.2°S, 18.3°E AUGUST 1955



AUGUST 1955
Fig. 64. CAPETOWN, UNION OF S. AFRICA

U. S. GOVERNMENT PRINTING OFFICE 873836
NBS 490

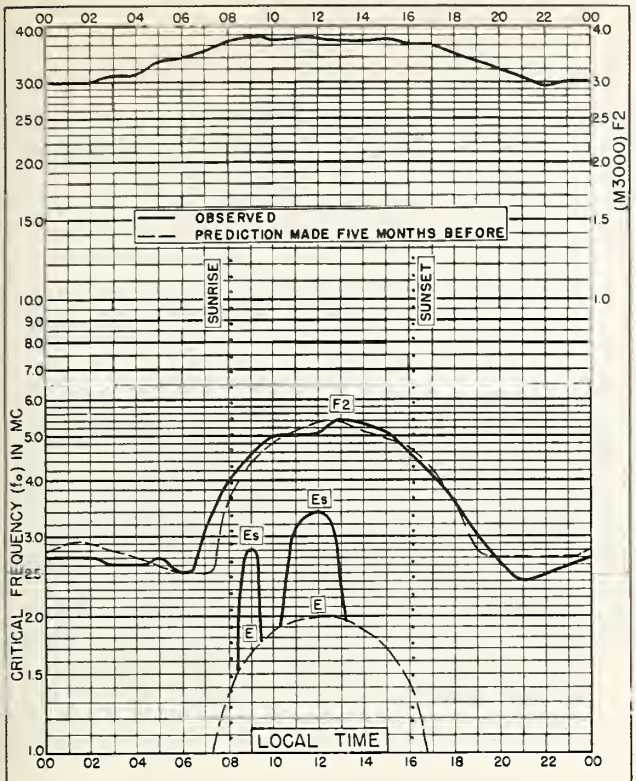


Fig. 65. DECEPCION I.
63.0°S, 60.7° W
AUGUST 1955

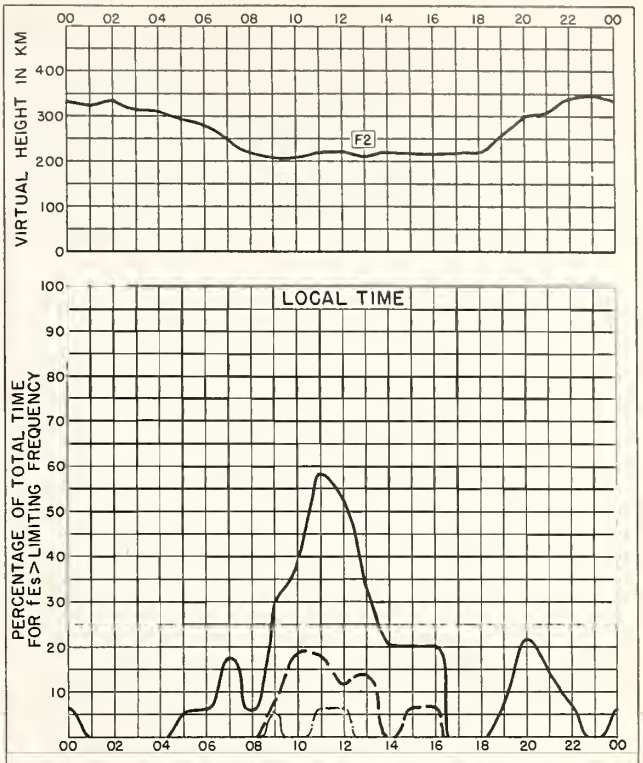


Fig. 66. DECEPCION I.
AUGUST 1955

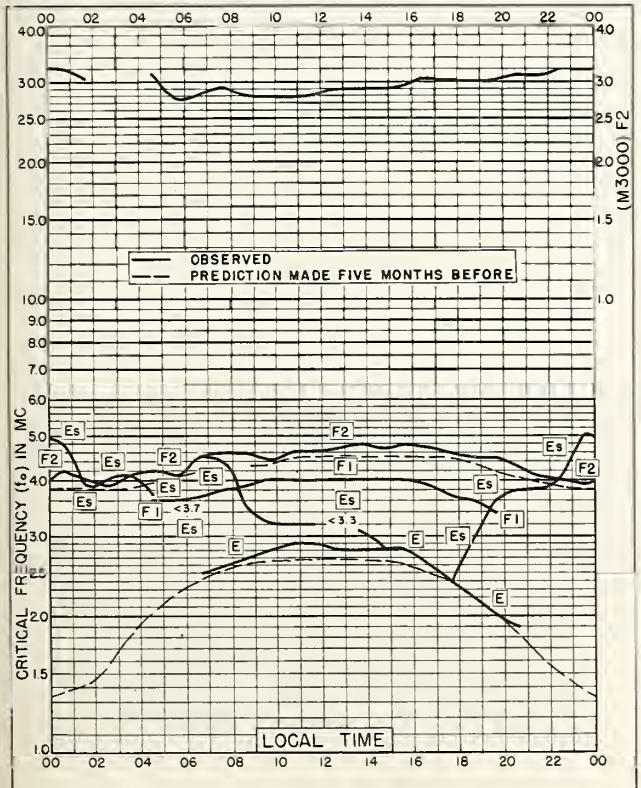


Fig. 67. POINT BARROW, ALASKA
71.3°N, 156.8°W
JULY, 1955

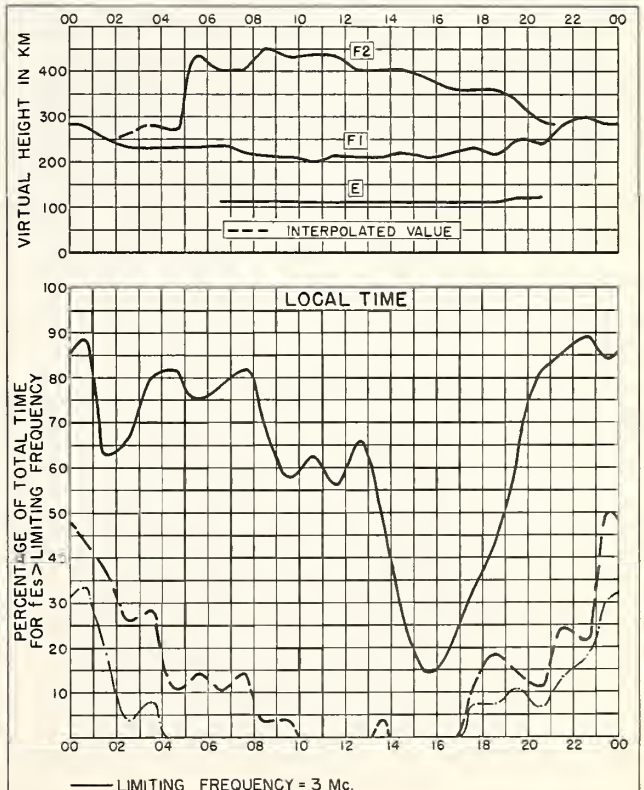


Fig. 68. POINT BARROW, ALASKA
JULY 1955

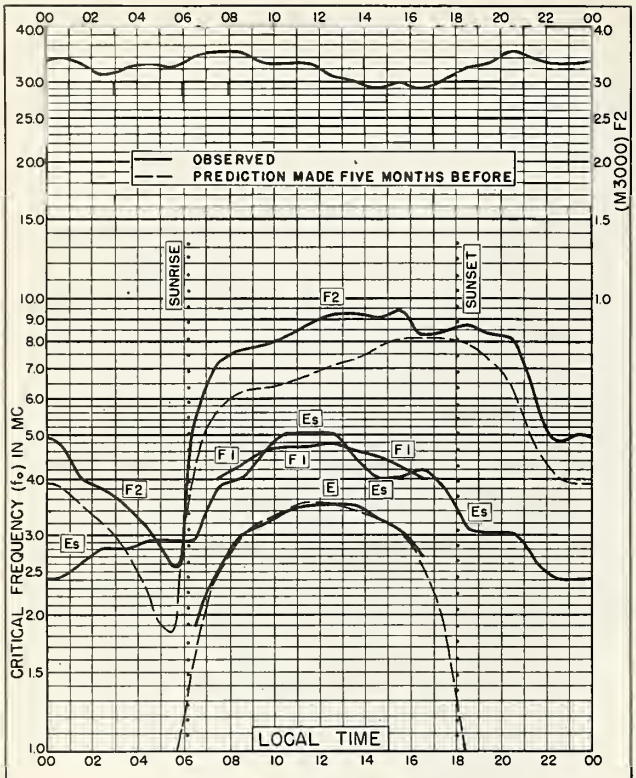


Fig. 69. NAIROBI, KENYA
1.3° S, 36.8° E
JULY 1955

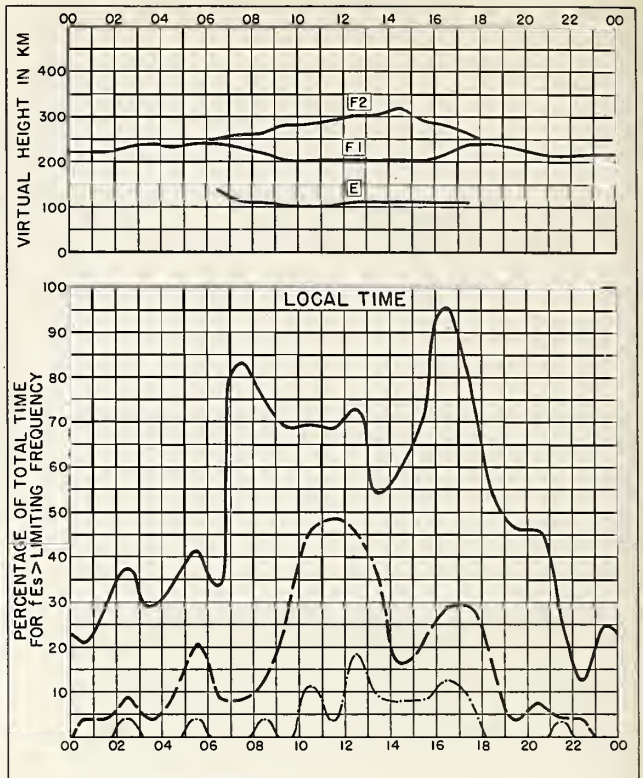


Fig. 70. NAIROBI, KENYA
JULY 1955

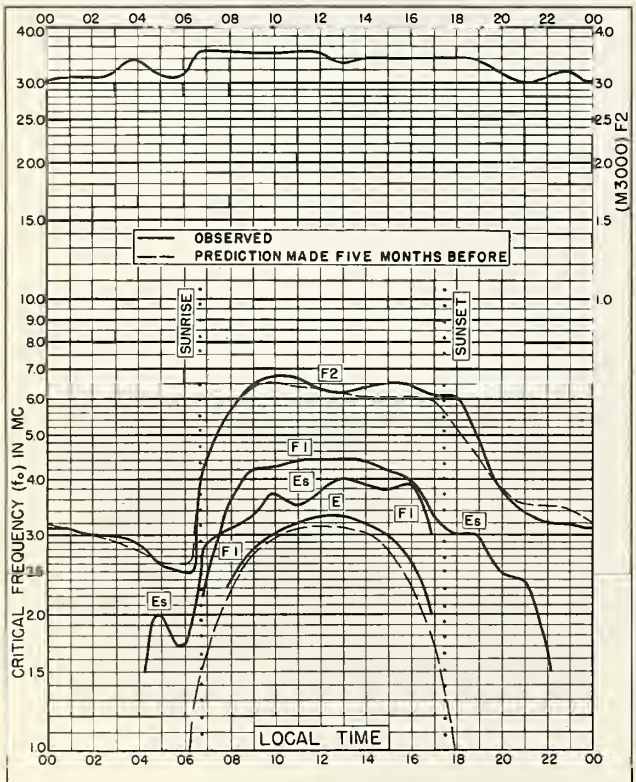


Fig. 71. RAROTONGA I.
21.3° S, 159.8° W
JULY 1955

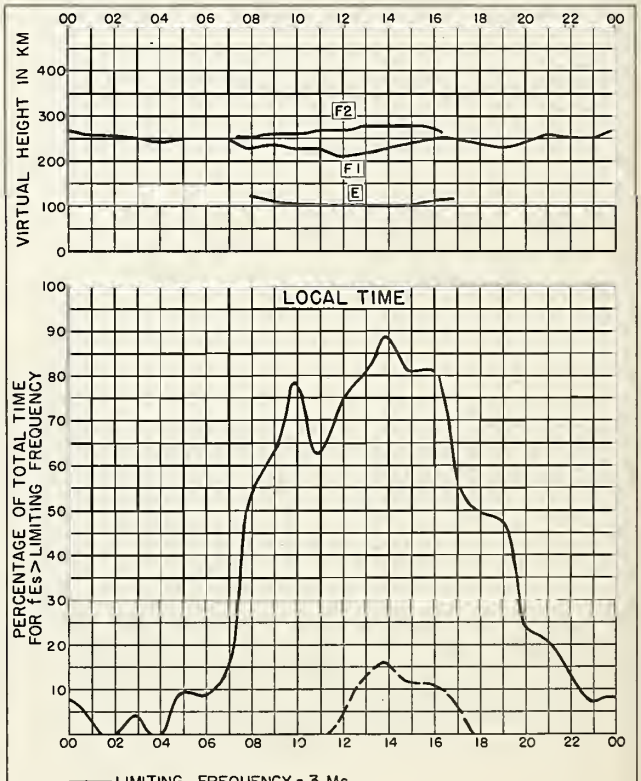


Fig. 72. RAROTONGA I.
JULY 1955

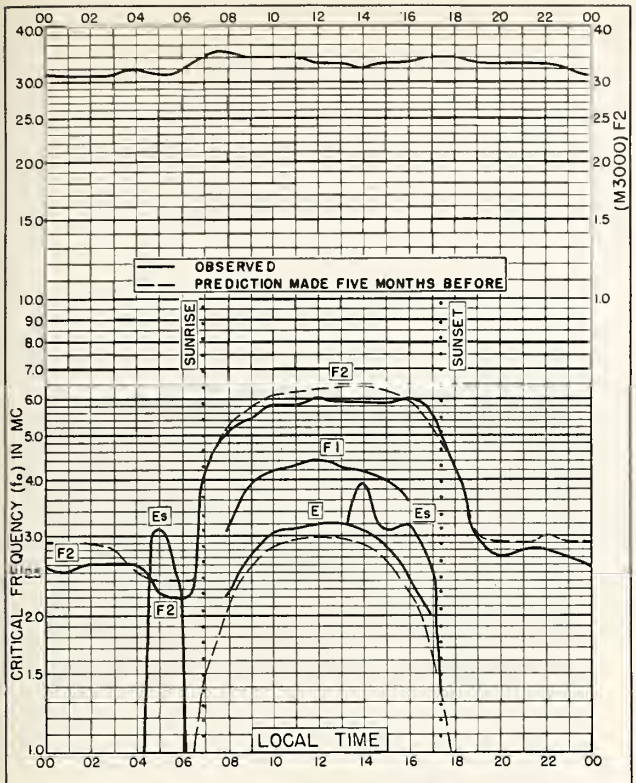


Fig. 73. JOHANNESBURG, UNION OF S. AFRICA
26.2°S, 28.1°E JULY 1955

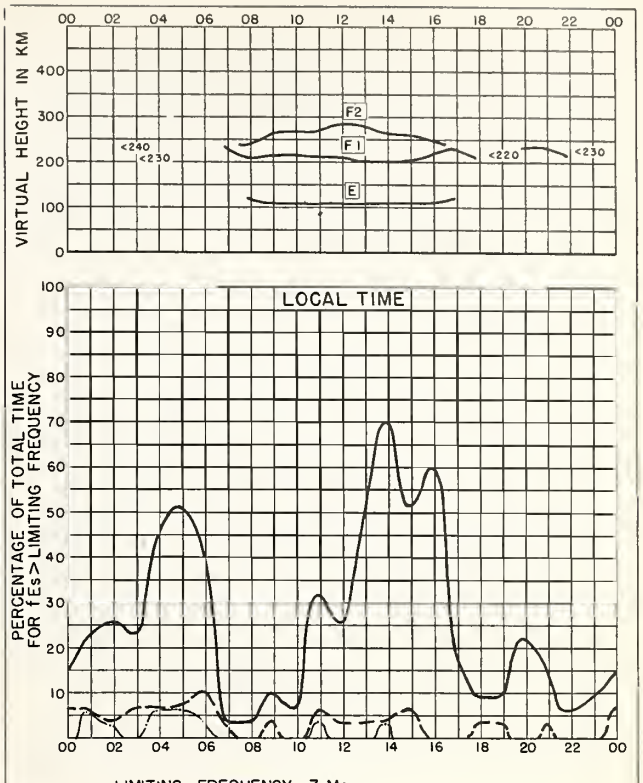


Fig. 74. JOHANNESBURG, UNION OF S. AFRICA JULY 1955

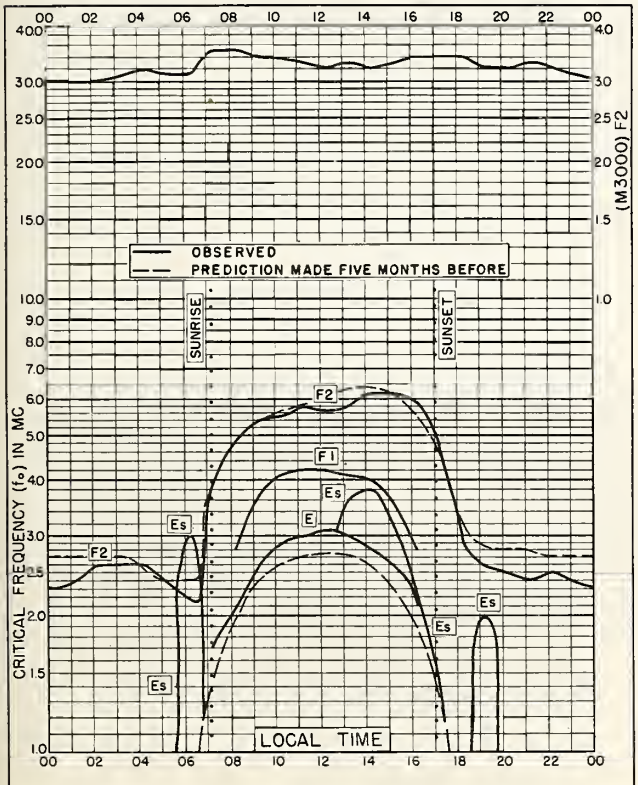


Fig. 75. CAPETOWN, UNION OF S. AFRICA
34.2°S, 18.3°E JULY 1955

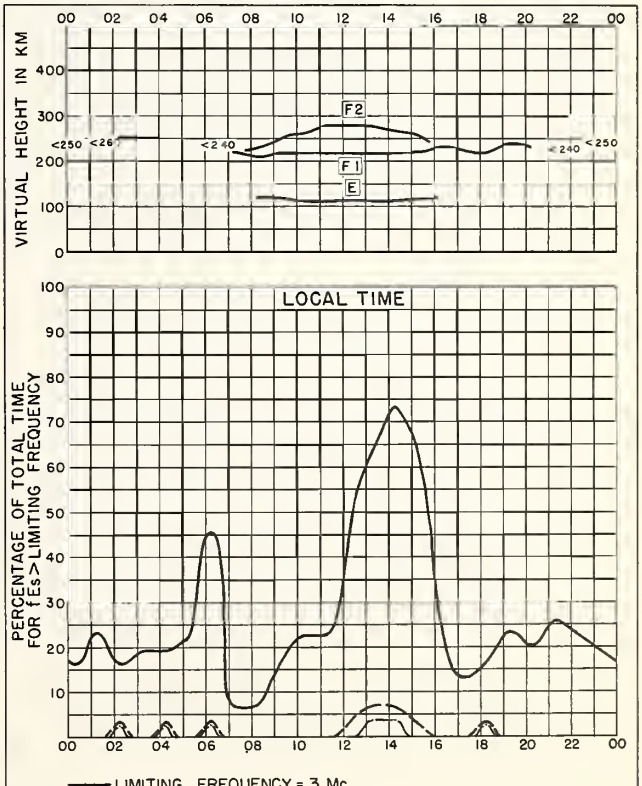


Fig. 76. CAPETOWN, UNION OF S. AFRICA JULY 1955

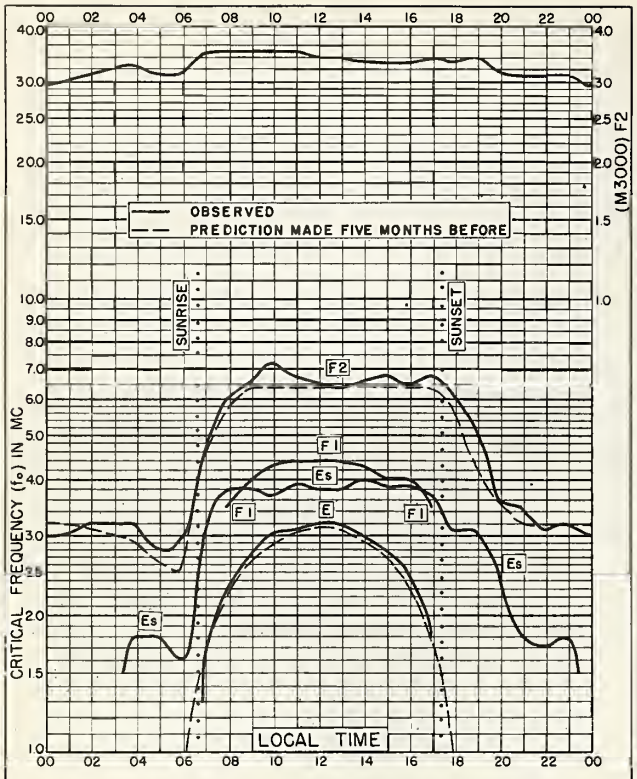


Fig. 77. RAROTONGA I.
21.3°S, 159.8°W
JUNE 1955

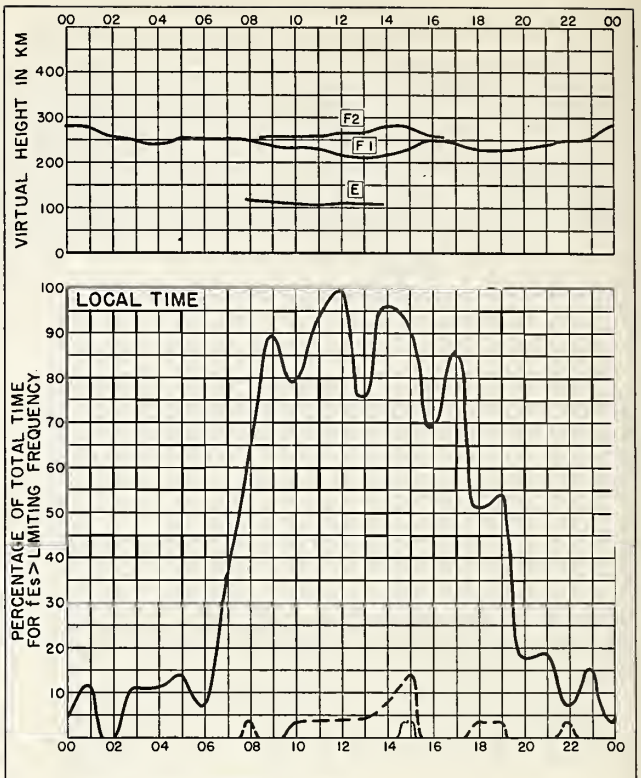


Fig. 78. RAROTONGA I.
JUNE 1955

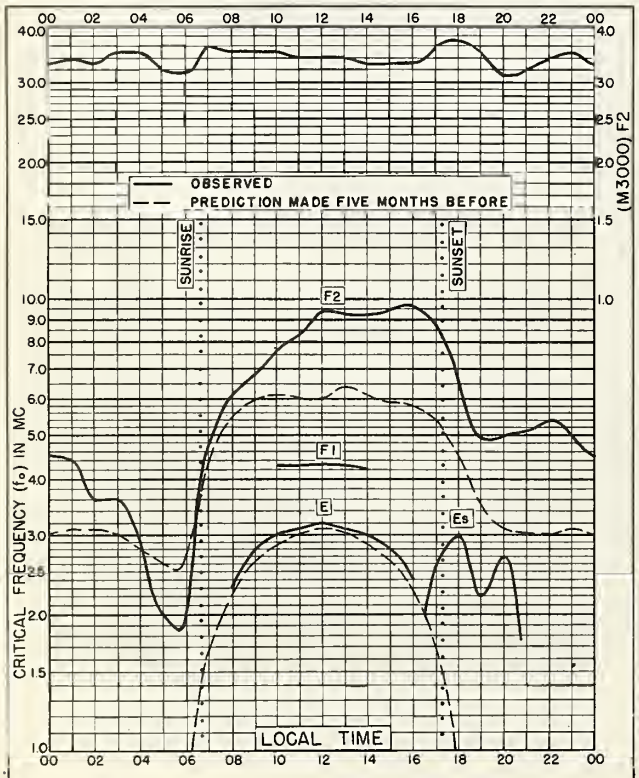


Fig. 79. SAO PAULO, BRAZIL
23.5°S, 46.5°W
JUNE 1955

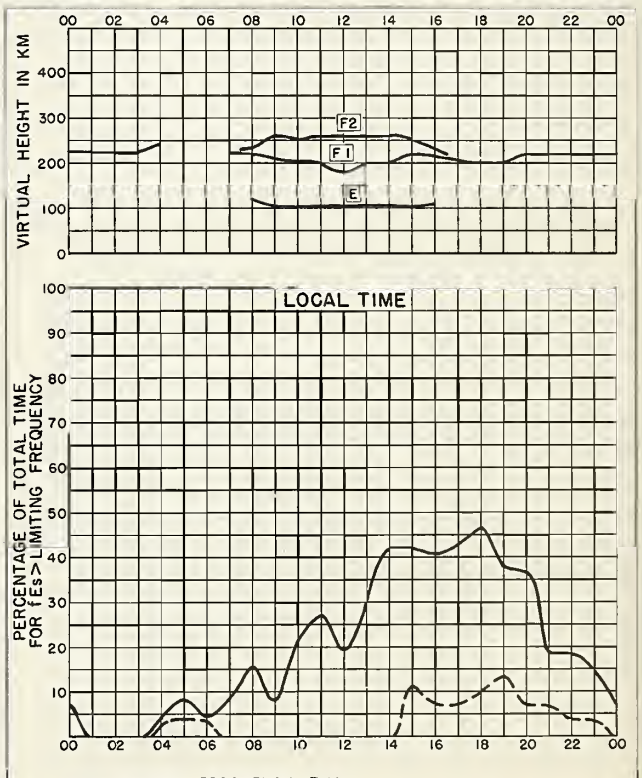


Fig. 80. SAO PAULO, BRAZIL
JUNE 1955

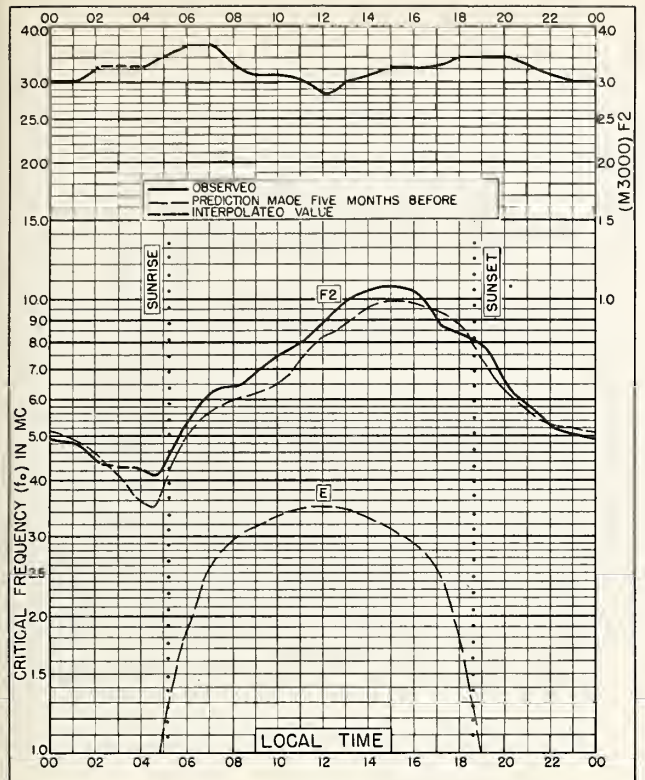


Fig. 81. DELHI, INDIA
28.6°N, 77.1°E
MAY 1955

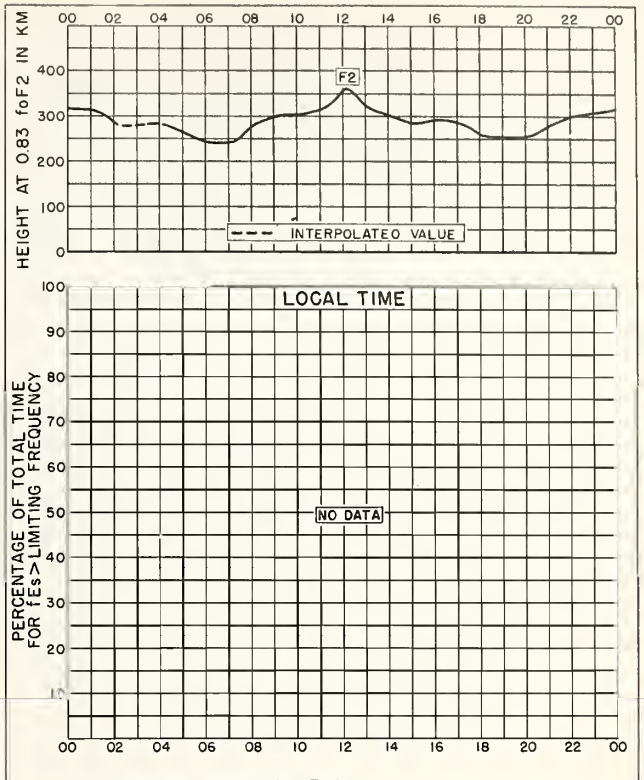


Fig. 82. DELHI, INDIA
MAY 1955

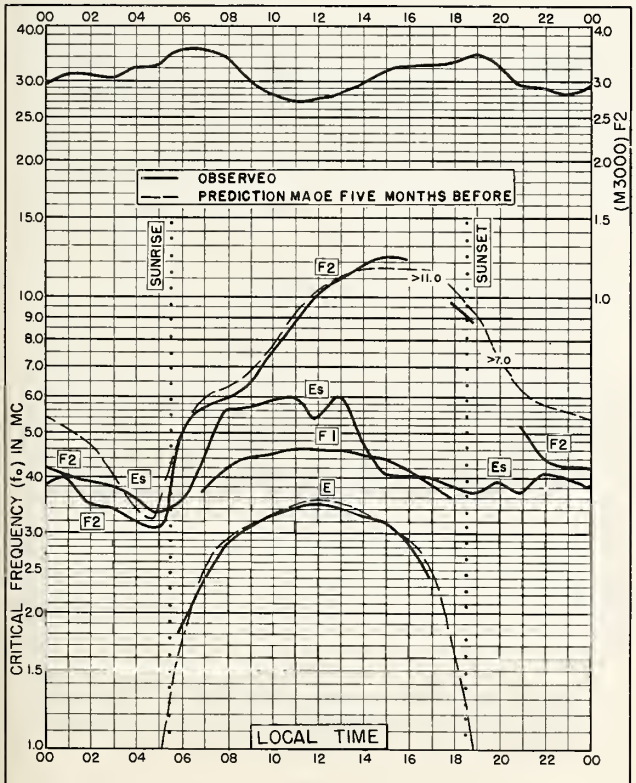


Fig. 83. AHMEDEBAD, INDIA
23.0°N, 72.6°E
MAY 1955

NBS 503

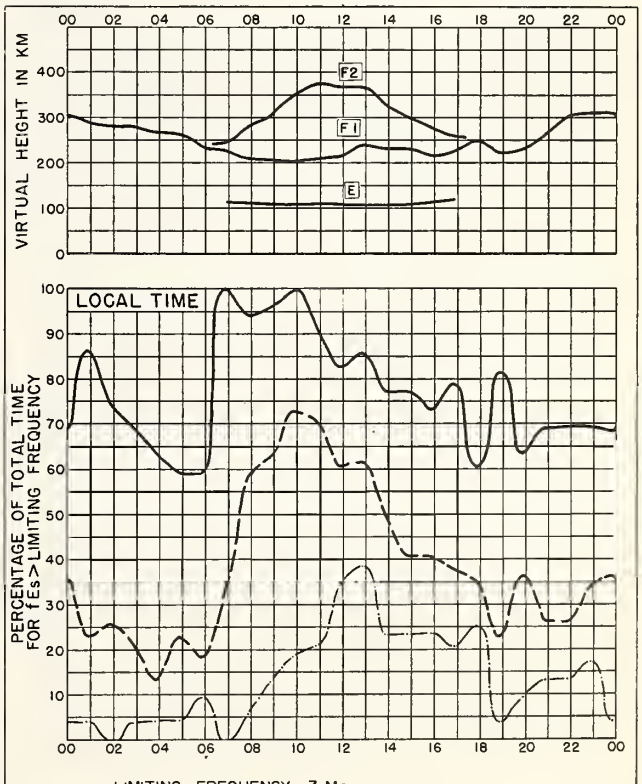


Fig. 84. AHMEDEBAD, INDIA
MAY 1955

NBS 490

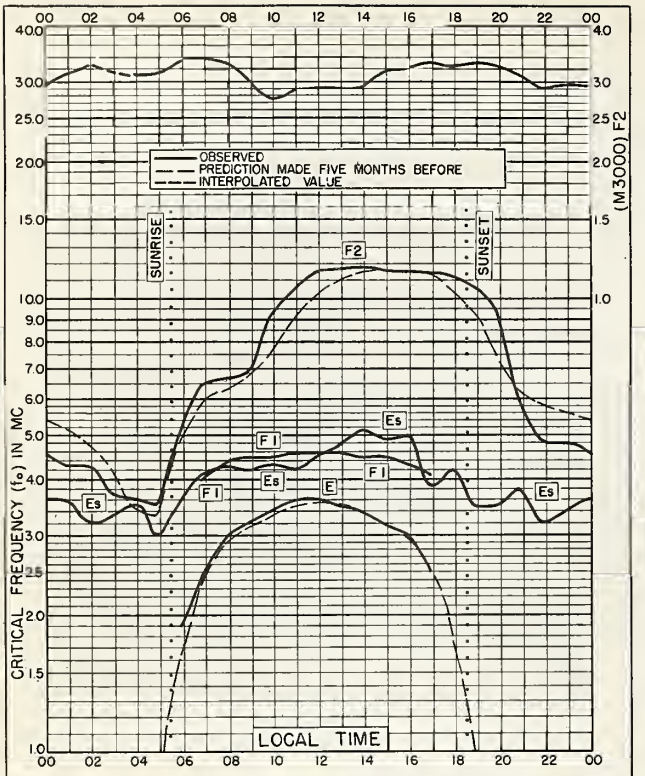


Fig. 85. CALCUTTA, INDIA
22.9°N, 88.5°E
MAY 1955

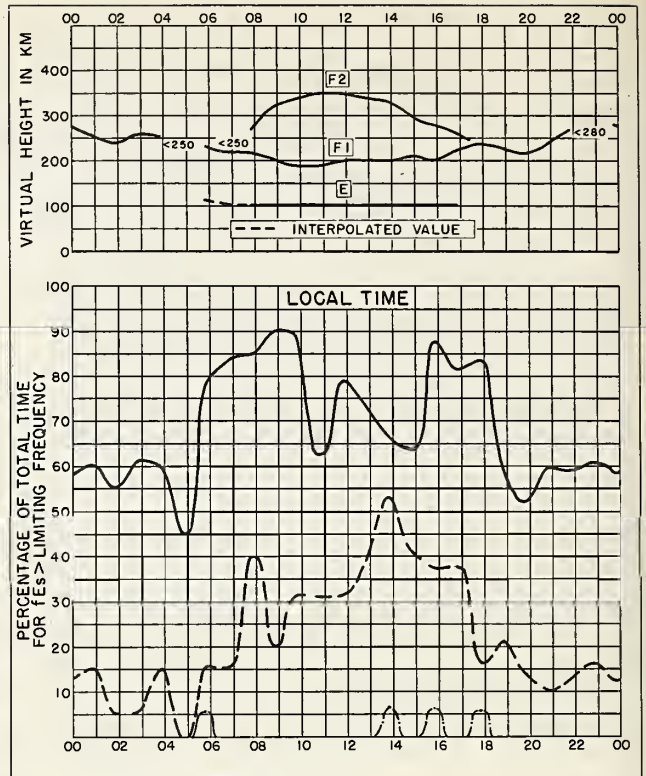


Fig. 86. CALCUTTA, INDIA
MAY 1955

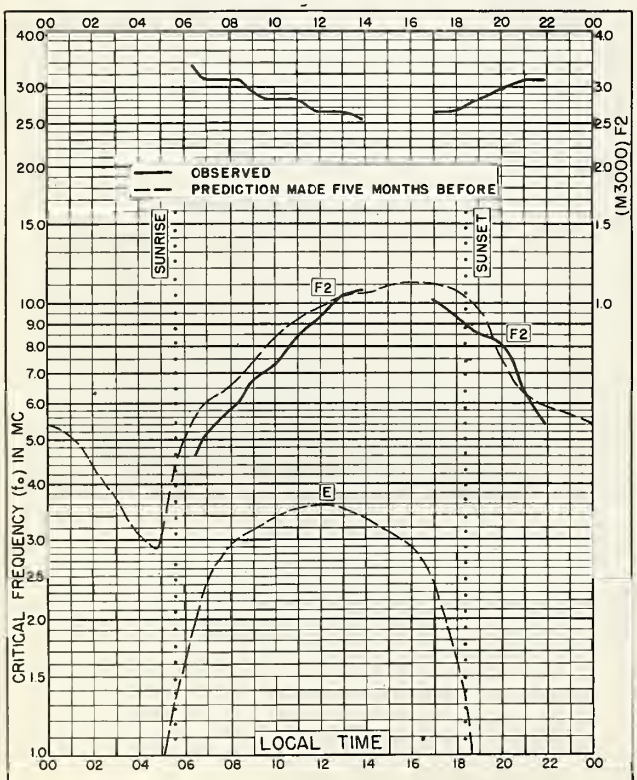


Fig. 87. BOMBAY, INDIA
19.0°N, 73.0°E
MAY 1955

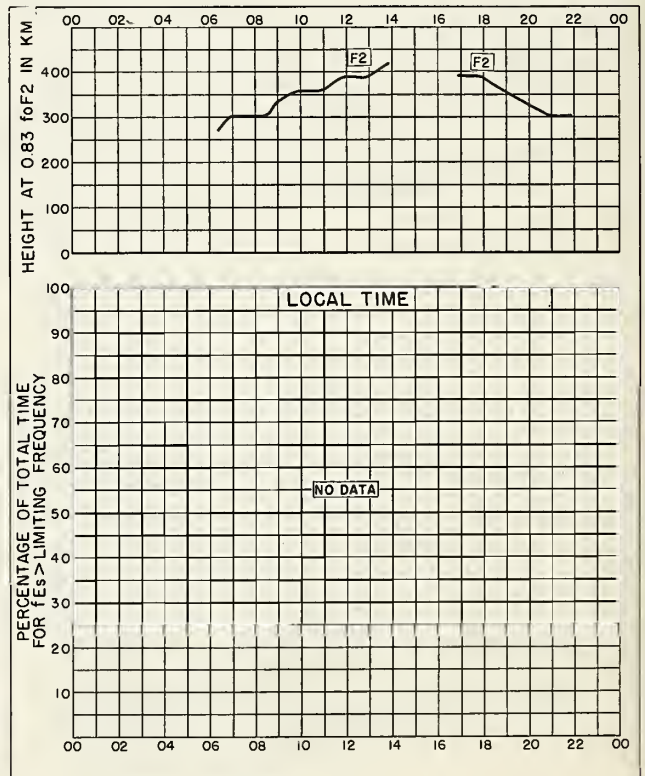


Fig. 88. BOMBAY, INDIA
MAY 1955

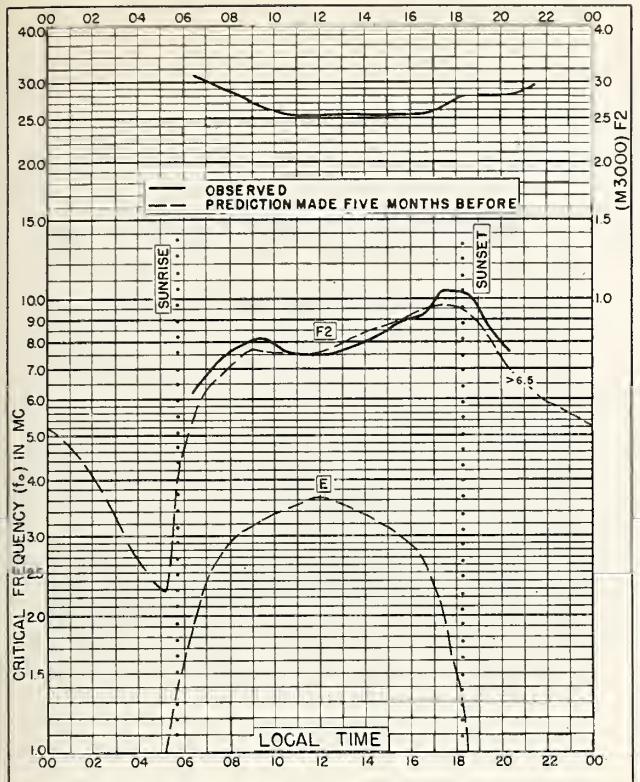


Fig. 89. MADRAS, INDIA
13.0°N, 80.2°E
MAY 1955

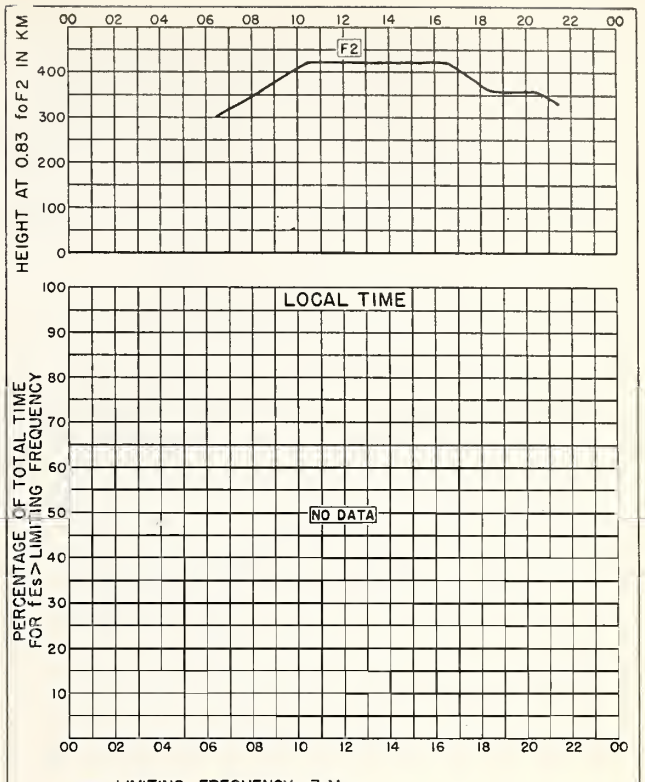


Fig. 90. MADRAS, INDIA
MAY 1955

NBS 490

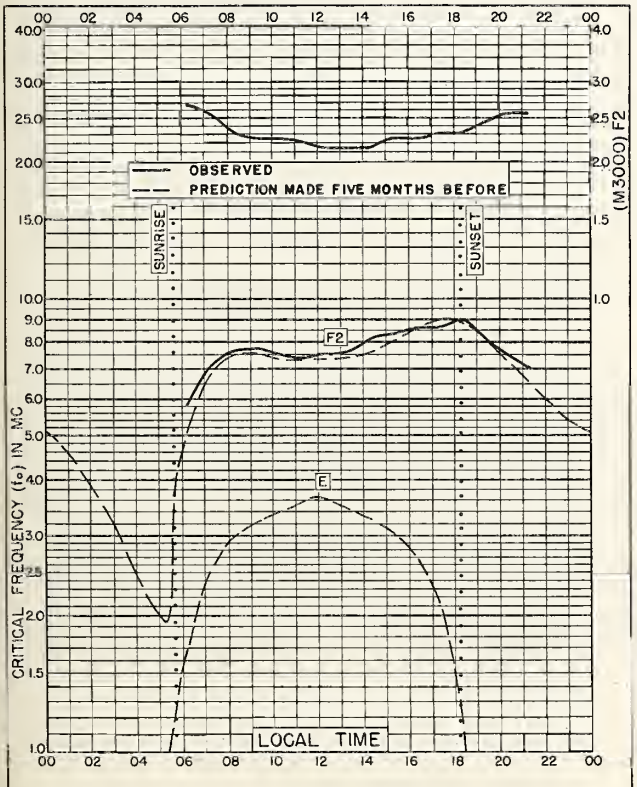


Fig. 91. TIRUCHY, INDIA
10.8°N, 78.8°E
MAY 1955

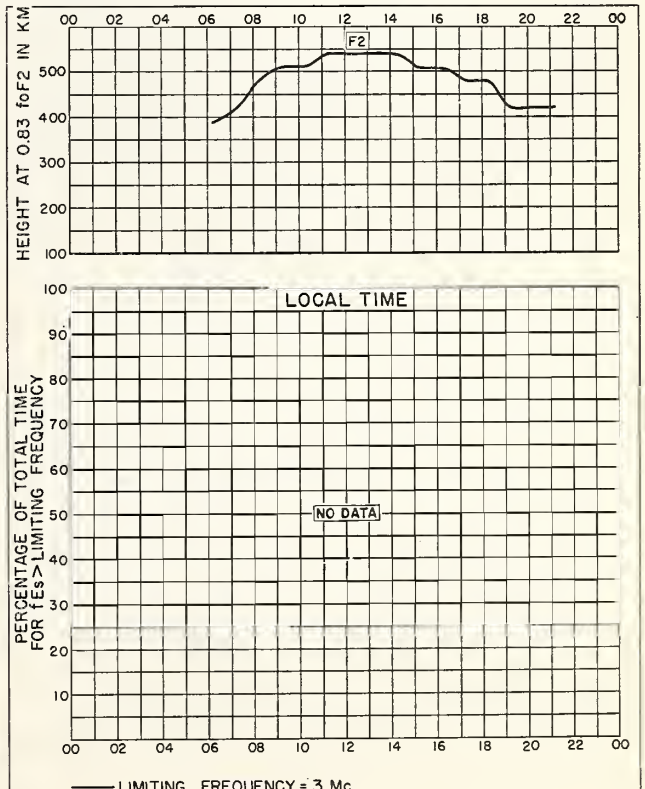


Fig. 92. TIRUCHY, INDIA
MAY 1955

NBS 490

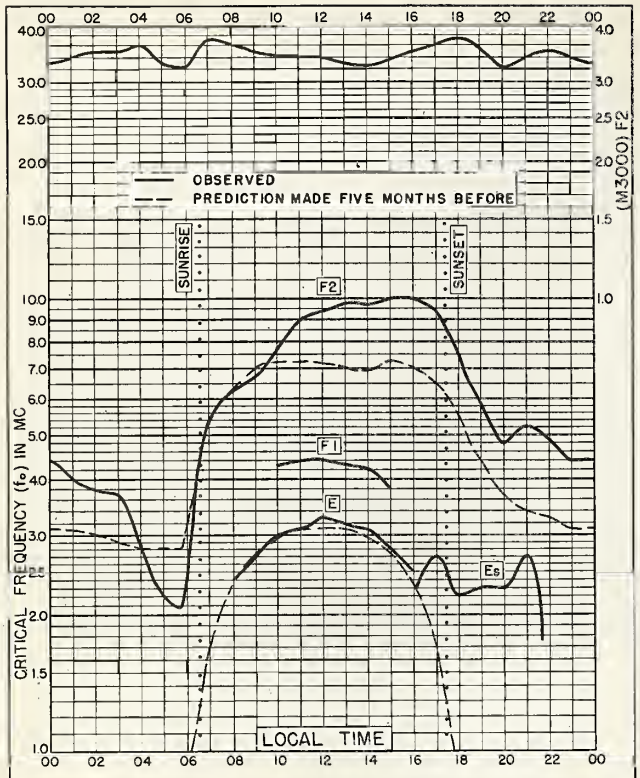


Fig. 93. SAO PAULO, BRAZIL
23.5°S, 46.5°W MAY 1955

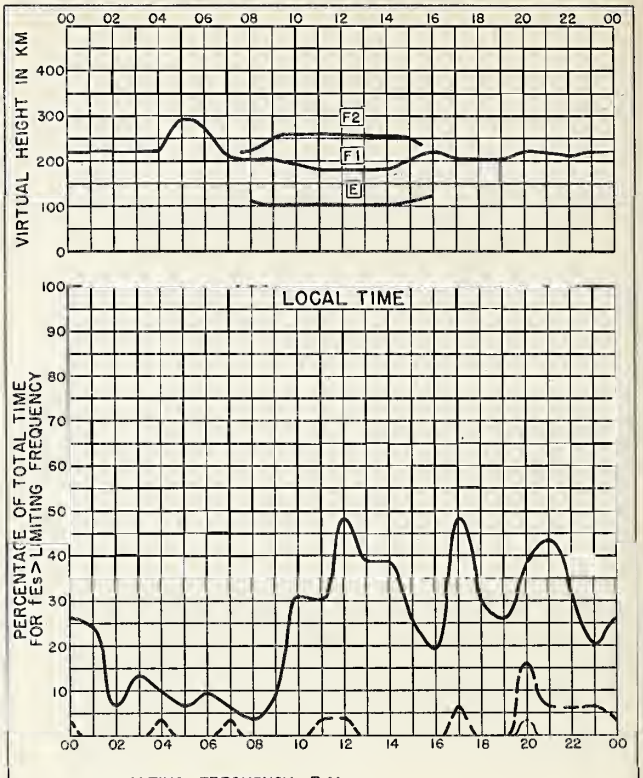


Fig. 94. SAO PAULO, BRAZIL MAY 1955

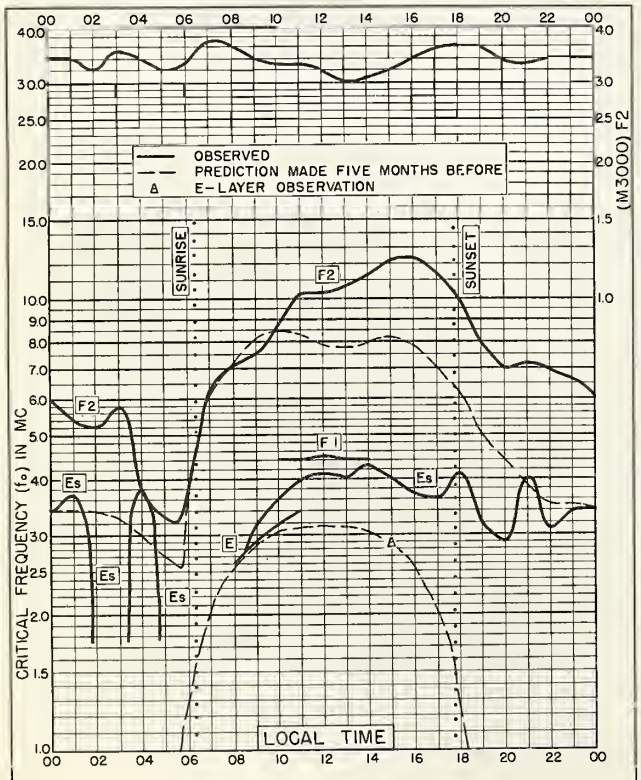


Fig. 95. SAO PAULO, BRAZIL
23.5°S, 46.5°W APRIL 1955

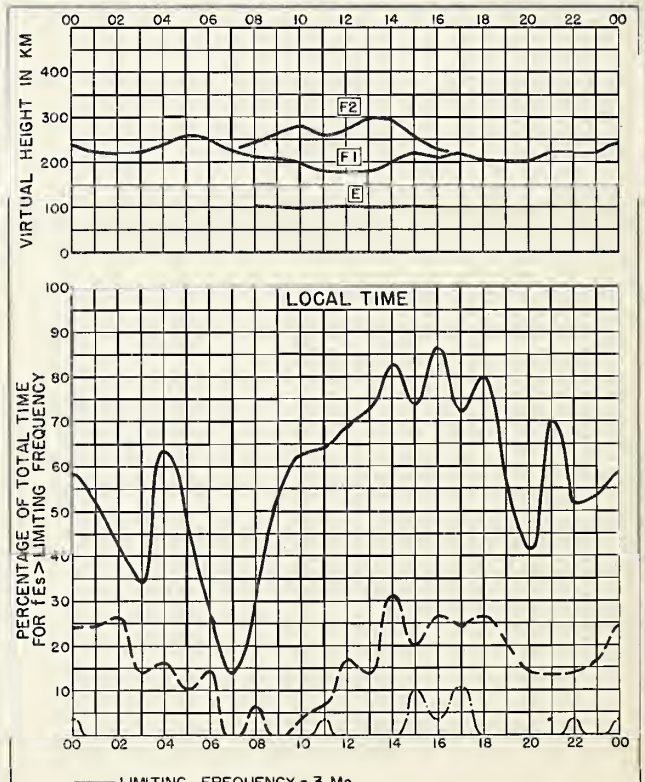


Fig. 96. SAO PAULO, BRAZIL APRIL 1955

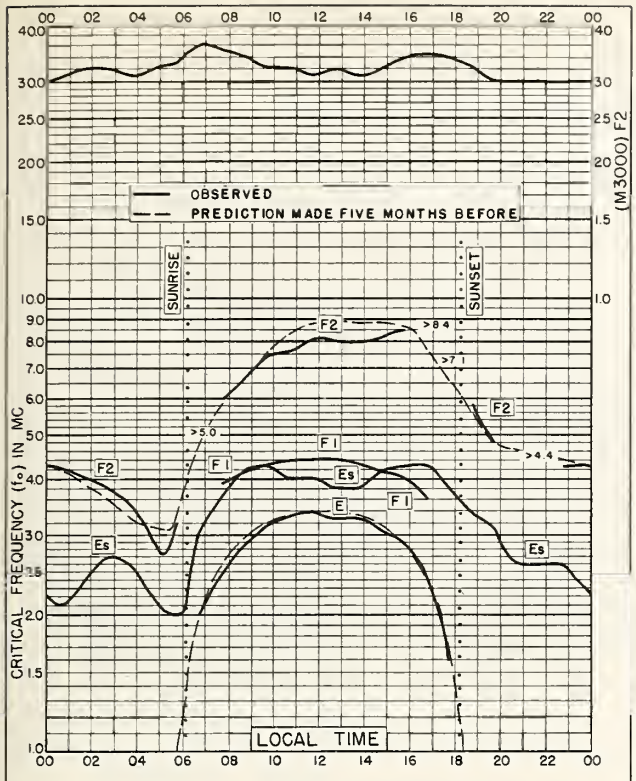


Fig. 97. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7° E
MARCH 1955

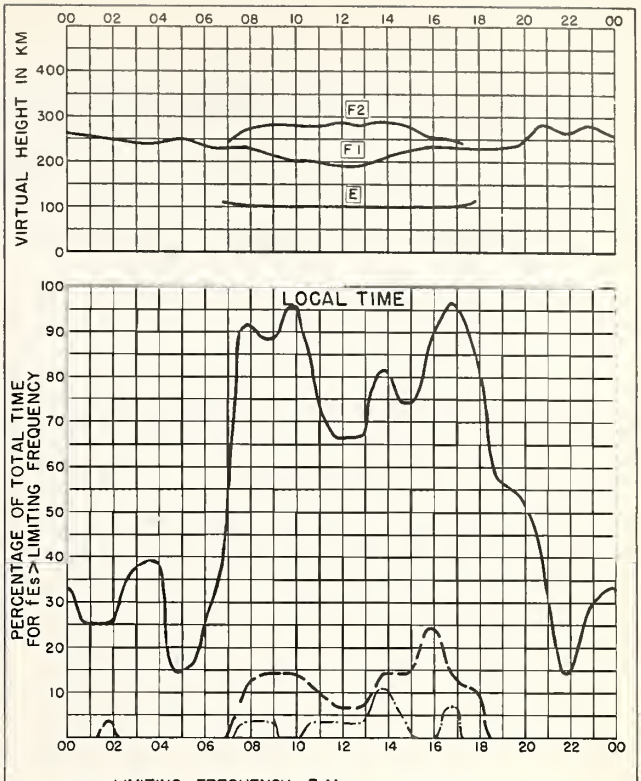


Fig. 98. TOWNSVILLE, AUSTRALIA
MARCH 1955

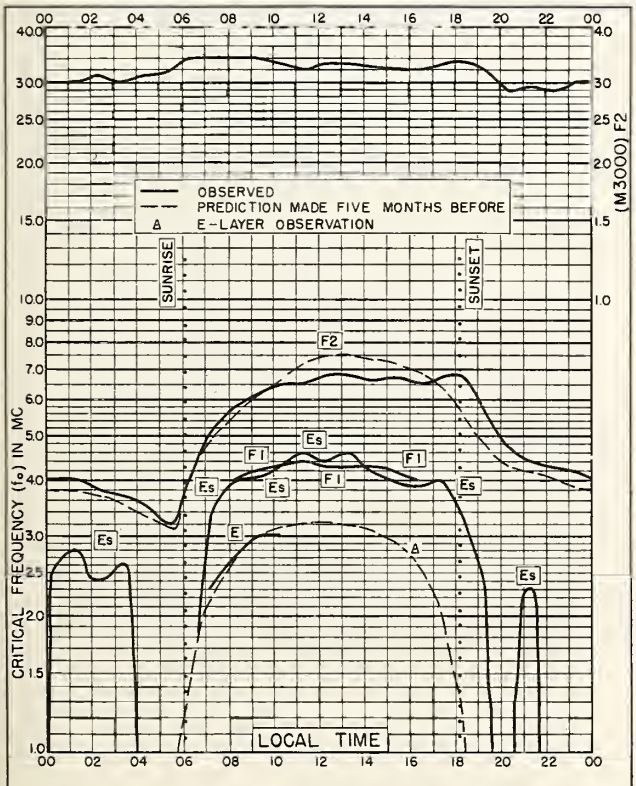


Fig. 99. BRISBANE, AUSTRALIA
27.5°S, 153.0° E
MARCH 1955

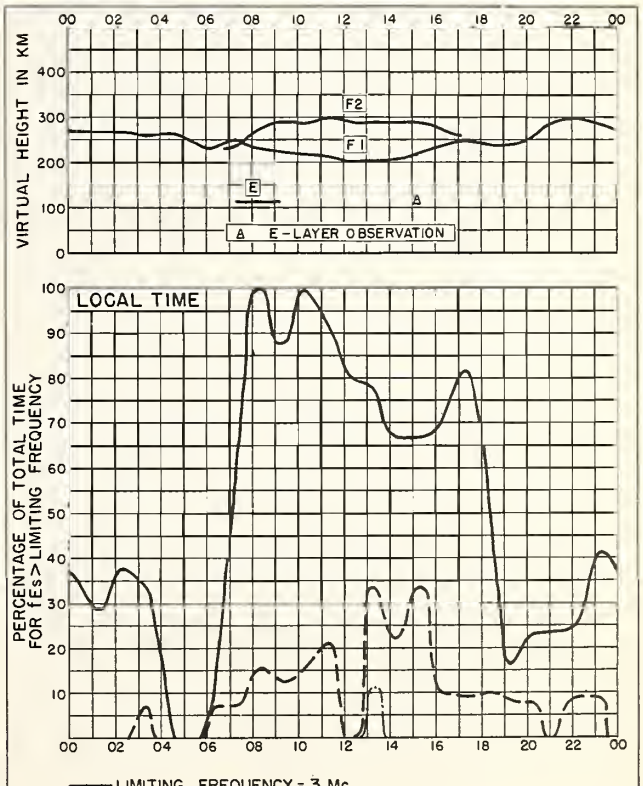


Fig. 100. BRISBANE, AUSTRALIA
MARCH 1955

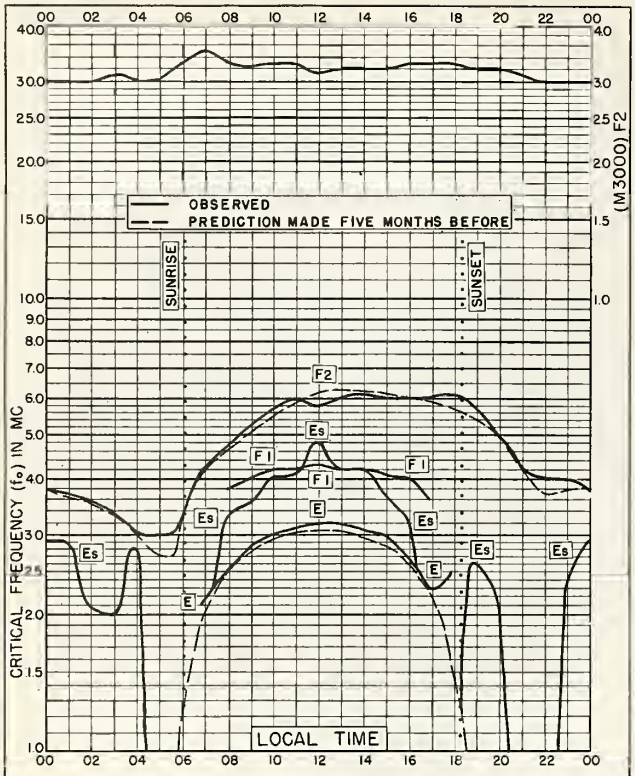


Fig. 101. CANBERRA, AUSTRALIA
35.3°S, 149.0°E MARCH 1955

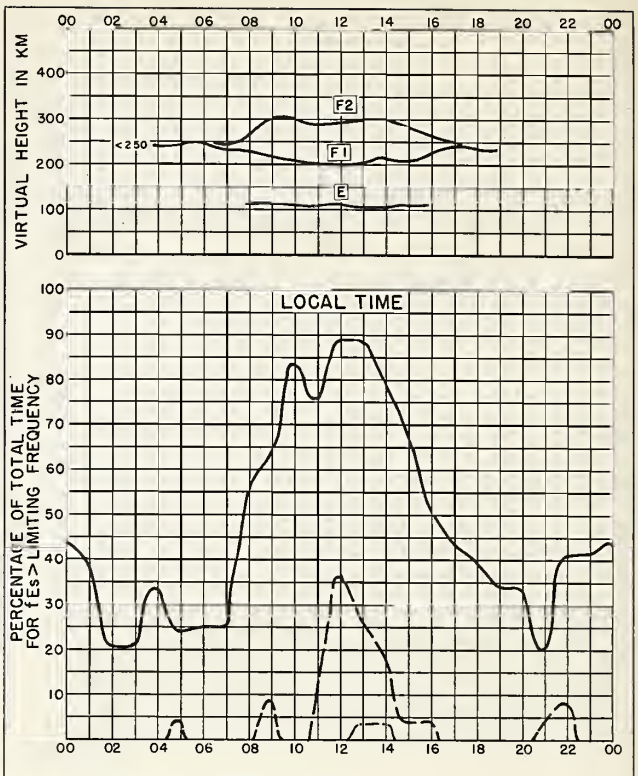


Fig. 102. CANBERRA, AUSTRALIA MARCH 1955

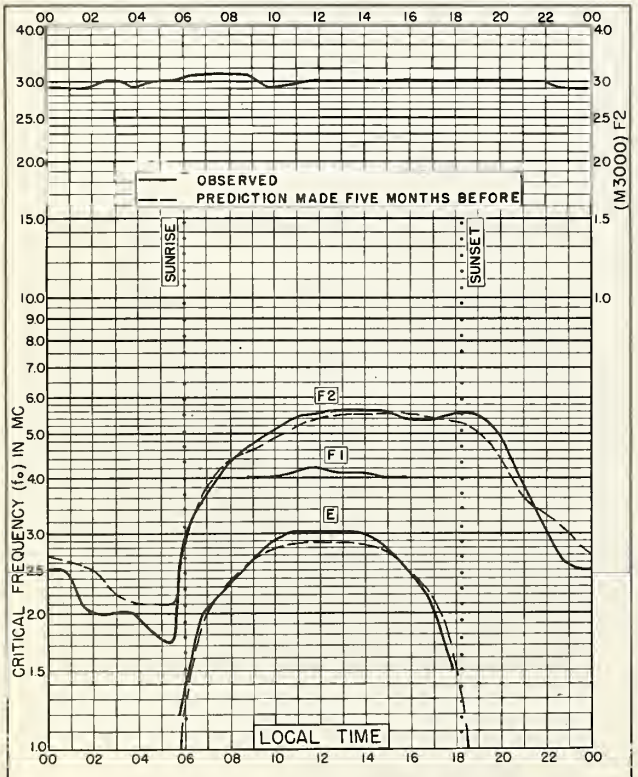


Fig. 103. HOBART, TASMANIA
42.9°S, 147.3°E MARCH 1955

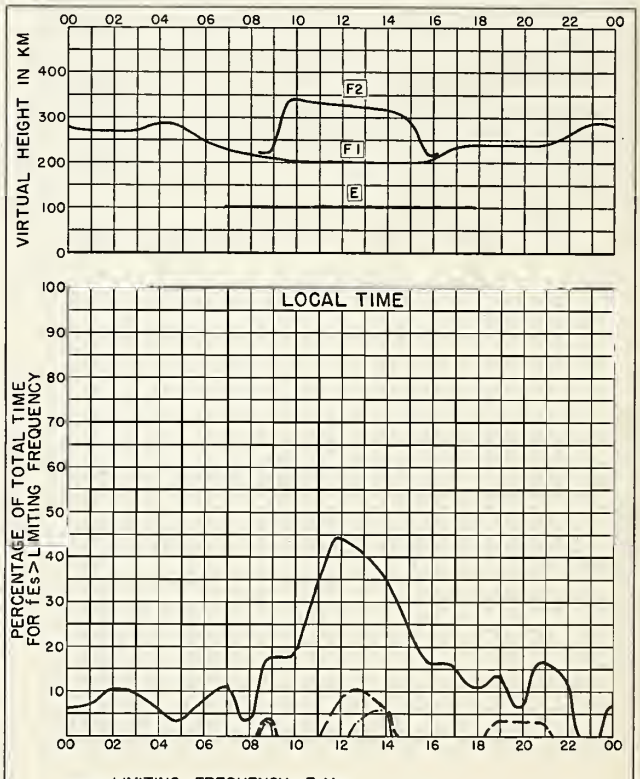


Fig. 104. HOBART, TASMANIA MARCH 1955

Index of Tables and Graphs of Ionospheric Data

in CRPL-F137 (Part A)

Index (CRPL-F137 (Part A), continued)

Index (CRPL-F137 (Part A), concluded)

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CRPL—Jp. North Pacific Radio Propagation Forecast (of days most likely to be disturbed during following month).

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